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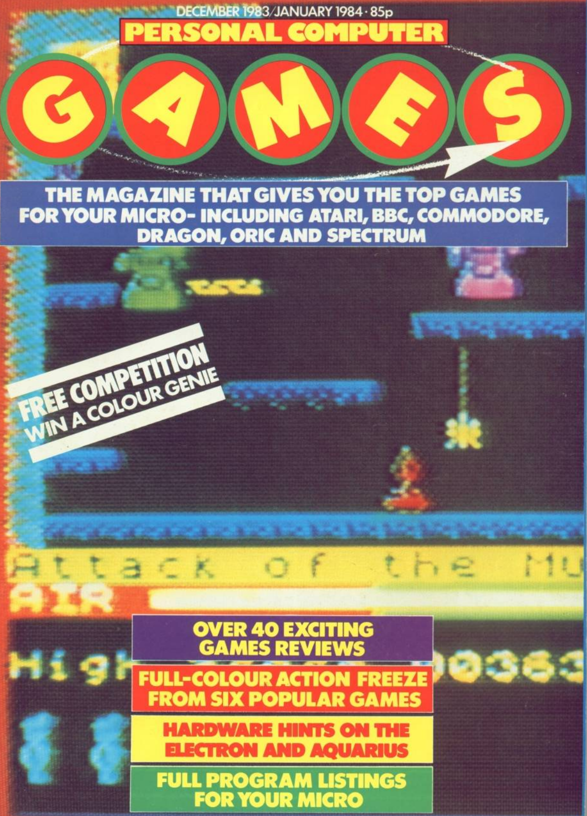

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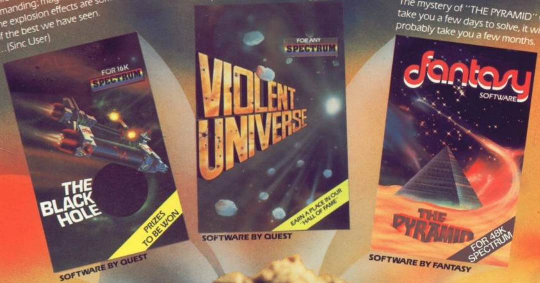

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OK I GIVE UP YOU WIN

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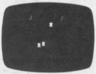

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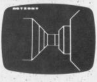

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This is a game for two players or one player and the computer. Both players agree on a winning total before starting. (100 is a quick game whilst 300 is a long game).

Player 1 starts the game with control of two dice. He/she rolls the dice and the total of the two faces is added to a running total. To get the running total added to his/her score the player must pass the control of the dice to his/her opponent. If one of the dice shows a one, the control of the dice is passed to the opponent. If *both* dice show a one the player is ''dirtied'' and loses all his/her score. When the control is passed over the running total returns to zero.

The first player to exceed the agreed total, after player 2 has completed his/her turn, is the winner.

SLIDER

The computer will generate a 5 × 5 square containing the letters A to X. Your task is to re-arrange the letters so that they look like

```
this  ABCDE          or this  ABCDE
      FGHIJ                   FGHIJ
      KLMNO                   KLMNO
      PQRST                   PQRST
      UVWX                    UVXW
```

The grid contains a single blank square. To move any letter or series of letters, press any letter which is orthagonally in line with the blank square.

OX

A grid of X's and O's will be created forming a playing area. The two opponents take turns to manouvre a cursor so that it covers an X and an O. By pressing the 'M' key the chosen X-O pair will be removed. The winner is the last player to remove an X-O pair.

LURE

A large rectangle is filled with black squares which are the holes in which you lure the chasers shown by chequered squares. You are the asterisk which flashes on the screen and must move around inside the rectangle avoiding holes and chasers. The chasers always run towards you. Use this fact to lure them in the holes where they die.

Keys 1–8 move the asterisk in the directions indicated on the rectangle. The required direction key must be held down as the chasers complete their moves.

After all the chasers are killed, or if you are captured or fall in a hole, a new frame will be created with less holes to lure the chasers in. You score 1 point for each chaser that is lured to its death. How much can you score in 11 frames?

TENFOUR

There are 4 numbers hidden by the computer at different locations on a 10 × 10 grid.

Try to find the 4 numbers in the least number of moves by inputing to the computer a square number of your choice.

The computer will then tell you how far away you are from any of the hidden numbers in the grid.

This is a game for strategists who enjoy working out puzzles. Sounds easy . . . doesn't it?

Also available for ZX81 and Spectrum with sound and colour.

SNATCH

This is an addictive game using numbers. The idea is to move around the grid collecting numbers from 0 to 9 which are added to your score.

Another strategy game for puzzle lovers. It is easy to make a wrong move and then you are out. How many numbers can you hit before you go over the edge? A choice of 65,535 grids or typing a 0 will give you a random choice location.

MAZERK

Three cylindrical mazes each a bit harder than the last. Move the asterisk through the maze to find the way out. There are ramps in the maze which move the asterisk three places ahead so you may end up missing the exit you wanted to go into. The computer will count the number of moves you make and tell you on completion of the maze, how well you have fared. Being a cylinder maze you can go out of one side and come back in on the other at the same level. Definitely frustration.

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COMING SOON...

United Microware Industrial (UMI) has *Alice in Videoland* (based on the book *Alice in Wonderland*) in an advanced state of preparation, and should release it in the UK soon.

It is a graphic adventure game that will set new standards for sound and graphics on the Commodore 64, but the bad news is that it will be priced around £30.

□ □ □ □ □

Comdata, which distributes many of its titles in the UK via Rabbit Software, has recently announced *Firing Line, Pegasus Odyssey,* a killer bats battle in an attractive hi-res landscape, *Ape Craze,* and *Supercuda.*

□ □ □ □ □

One of the USA's Timex/Sinclair producers **Softsync** is bounding into Commodore 64 software with *Mothership,* an action game in 3D with various battle scenarios.

In the pipeline are *Red Alert, Circuit Runner, Cosmic Guerilla,*and *Tunnelvision.*

□ □ □ □ □

Rumour has it that **Datasoft** is planning a version of *Zaxxon* for the Commodore 64 – watch this space for further news!

□ □ □ □ □

Other releases for the 64 include: *Frogger* (disk), *Moon Shuttle* (cartridge) again from Datasoft, *Repton* (disk) and Jumpman from **Epyx;** *Pharaoh's Curse* from **Synapse;** *Fort Apocalypse, Shamus, Protector, Survivor,* and *Forbidden Forest* from **Cosmi;** *Sammy Lightfoot* and *Apple Cider Spider* from **Sierra;** Arex from **Adventure International;** and *Parallax* from **London Software**.

The Atari owners among you will recognise many of the titles since they are straight conversions from Atari to Commodore 64.

□ □ □ □ □

Ultimate has released two new titles for the Spectrum – *Lunar Jet Man,* the follow up to *Jet Pac,* and *Atic Atac,* a haunted house adventure.

For Vic 20 owners Ultimate has converted one of its best-selling titles, *Jet Pac.*

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VIDEO PALACE

Games are rapidly invading the video shops, but one shop, The Video Palace, in Oxford Street, London, has gone one step further – it's producing its own.

Not satisfied with distributing over a thousand games, Palace Software (a subsidiary of the same group) is getting in on the act.

They have produced a set of arcade style packages for the Spectrum, Oric, BBC Micro, Electron, Commodore 64, and Vic 20.

The games should be on the shelves and in the catalogues around the beginning of next year, at between £5.99 and £7.99.

The Video Palace claims that all the games are original fast-action games, although some of them will be based on film themes.

The idea of marketing games to fit in with feature films is really taking off, particularly in the USA.

20th Century Fox Video Games has just acquired the rights to *Porky's Bar* – a recent cinema release.

This is a five-screen encounter game where you attempt to stop Pee Wee, Wendy, and Ballbreaker from destroying Porky's Bar.

Imports of the game should come soon for Colecovision, TI 99/4A, Atari and Vic 20.

THORNY GAMES

Thorn EMI Video is releasing another four games at the end of this month – two for the Vic 20 and two for the Atari 400/800.

The Vic games are *Tank Commander* and *Mine Madness* In *Tank Commander* you drive your tank behind enemy lines to blow up their supply dumps, fighting off enemy tanks on the way, while in *Mine Madness* you take gold out of an abandoned mine by lift.

If you enjoy sick games, *Carnival Massacre* for the Atari machines should be right up your street.

Also for the Ataris is *Killer Climb,* based on the old Jack and the Beanstalk story – climbing the beanstalk to steal the giant's treasure.

Severn Software will release *Lone Raider* at £6.95 in mid-October, a Scramble type arcade game (machine code, colour, multi-level, sound).

Durell Software has two Oric titles and one Spectrum title under preparation for release in October, *Galary 5,* and *Scuba Dive* for Oric and Spectrum. Durell will also be converting one of its best sellers *Harrier Attack* on to Atari 400 and Commodore 64 format.

For fans of the arcade game *Phoenix* and who own 16/48K Spectrums, get yourselves a copy of *Phoenix* from Megadodo Software at 16 While Road, Sutton Coldfield, West Midlands B72 1ND. This is the closest 'Clone' seen to date and is well worth the £5.50 outlay.

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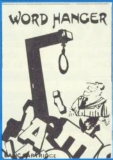
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COMING SOON...

Datamost has released nine new games and a graphics package called *Print Wizard*.

They will be available on disk and cartridge at around $40 from the States, and include *Cosmic Tunnels*, a 16-screen arcade game where you attempt to break through a space blockade, *Wiz'n'Roo*, a two-player 3D game *Monster Smash*, *Venus Voyagers*, *Jet Boot Block*, *Topsee Turvee*, *Night Raiders*, and *Roundabout*.

All games are in the Atari 400/800 format.

* * *

Broderbund has announced two new games for the Atari 400/800 computers – *Operation Whirlwind*, aimed at arcade players with inclinations to war themes, and *Cargo Bay* by David Snider (of *David's Midnight Magic* fame).

Also released for the Commodore 64 are *Choplifter* (by Dan Gorlin, who designed the Atari original), *Seafox*, *Serpentine*, and *David's Midnight Magic*. They are on cartridge, at $35 to $45.

* * *

Roklan's new releases include three arcade games – *Eyes*, a creepy chase game, *Da' Fuzz*, a car game, and *Rockball* from the arcade game of the same name (not yet released in the UK).

* * *

Epyx has joined the trend towards buying licenses for well-known amusement arcade titles by releasing Bally Midway's *Gunfight* and *Seawolf II*, for the Texas Instruments and Atari 400/800 micros.

* * *

Tronix has two new releases in the US for Vic 20 owners – *Deadly Sky*, a helicopter shoot'em'up game with 32 levels, and *Scorpion*, another 32-level 'zap' game, at $4.

For the Commodore 64 *Kid Grid* (converted from the Atari) and *Juice* were released, both at $4.

* * *

Microdeal, the Dragon software specialist, has announced five new titles.

Cuthbert in the Jungle and *Cuthbert goes Digging* are the latest adventures of a newly-created Dragon 'star' who first appeared in *Cuthbert goes Walkabout*.

The other new releases include a real-time adventure, a zany American game called *Crazy Painter* and an arcade-style *Star Wars* game.

* * *

Virgin, one of the newest software companies around, continues to expand with the release of eight titles.

Envahi and *Creepers* are machine code arcade games for the expanded Vic 20, *Racing Manager* and *Latex* are for Spectrum owners (48K) looking for a change from alien zapping, and *Death Cruise*, *I Ching*, and *Castle Adventure* do the same for Dragon 32 users.

* * *

A range of 21 titles has been released by **Artic Computing**, bringing the Artic catalogue up to 62 titles.

There are five programs for the Vic 20, 10 for the Spectrum, five for the ZX81 and one for the Oric.

* * *

Quicksilva, the Southampton-based software house, has announced new games and utilities for the Spectrum, Commodore 64 and BBC Micro, including *Gridrunner*, *Purple Turtle* and *Games Designer*.

* * *

Salamander has acquired the licence to convert and market Jeff Minter's Vic 20 games (Llamasoft) for other micros, including the Dragon, BBC Micro, Spectrum and Oric.

The games to be converted include *Gridrunner*, *Laser Zone*, *Traxx*, *Matrix* and *Hovver Bovver*.

DAILY Mirror

Rumour has it that the *Daily Mirror* is going to launch its own games software. This hush hush operation has even been kept secret from the *Mirror*'s own staff, but a reliable *PCG* mole informs us that several software houses have already been commissioned to produce good quality games.

Perhaps we can expect to see a *Daily Mirror* Home Computer Club to go with its video club. It's a refreshing change to see a Fleet Street tabloid showing an interest in computers, until now the domain of the quality Sunday and daily newspapers.

PCG TITBITS

Supersoft has released *Stix* on cassette for the 64 at £9.20. This is based on Atari *Qix*, it has excellent clear graphics and good sound effects, the higher levels bringing a wealth of colours and frantic gameplay. Other programs in the pipeline include *Crazy Kong* from Nigel Fisher and *3D Glooper* a cross between *Pac-man* and a 3D maze game.

Jeff Minter from Llamasoft is currently working on a follow up to *Attack of the Mutant Camels* where you take control of the camel and have various arcade scenarios to overcome. *Revenge of the Camels* is on the Commodore 64 format and should be available in late October.

LEARNING TO PLAY

A lot of parents will be rushing out this Christmas to buy an Electron for their kids (*see page 110*) – a good buy for the price, but what about software?

As with all new machines, good software designed for the Electron is thin on the ground, so it's good to see that Chalksoft, an educational software house, has been quick off the mark with two educational games aimed at seven to 14-year-olds.

Puncman 1 & 2 is a punctuation program in which Nosher eats up full stops and capital letters, and Punchman, controlled by the child, puts them back.

The other game, *Invisible Man*, helps children learn about coordinates. A cartoon man is hidden in a grid and to find him the player needs to solve clues in the form of compass directions.

Both packages will be available shortly and will be followed in November with two other Electron games.

CBS TAKES OVER MANIC MINER

Bug-Byte Software the company that brought us *Manic Miner (see page 97)* for the Spectrum, has signed a major distribution deal with CBS, the record and video company.

The deal gives CBS exclusive rights to market all Bug-Byte software in the UK.

Apart from being good for dealers and distributors, it should make it easier for us to get hold of the games.

TWO FOR THE DRAGON 32

FROG-HOP: More idiot frogs! This version of the popular arcade game uses hi-res graphics and machine code for a fast moving game.

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PCG SOFT HITS

	Title	Publisher	Machine
1	Horace and the Spiders	Psion	Spectrum, ZX81
2	Arcadia	Imagine	Vic 20/Spectrum
3	Jet-pac	Ultimate	Spectrum
4	Flight	Psion	Spectrum, ZX81
5	Penetrator	Melbourne	Spectrum
6	Gridrunner	Llamasoft	Vic 20
7	3D Tanx	dktronics	Spectrum
8	Trans Am	Ultimate	Spectrum
9	Timegate	Quicksilva	Spectrum
10	Manic Miner	Bug Byte	Spectrum
11	Ah diddums	Imagine	Spectrum
12	Kong	Ocean	Spectrum
13	Zoom	Imagine	Spectrum
14	Monsters in Hell	Softek	Spectrum
15	The King	Microdeal	Dragon
16	Hobbit	Melbourne	Spectrum
17	Heathrow ATC	Hewson	Spectrum
18	Football Manager	Addictive	Spectrum
19	Matrix	Llamasoft	Vic 20
20	Wacky Waiters	Imagine	Vic 20
21	Harrier Attack	Martech	Oric
22	Nightflight	Hewson	Spectrum
23	Horace Skiing	Psion	Spectrum
24	Mad Martha	Mikrogen	Spectrum
25	Crazy Kong	Interceptor	Vic 20, Commodore 64
26	Starfire	Virgin	Spectrum
27	Xenon 1	IJK	Oric
28	Jumbo Jet Pilot	Thorn-EMI	Atari 400/800
29	Chess	Psion	Spectrum
30	Parsec	Texas	TI 99/4A
31	Yomp	Virgin	Spectrum
32	TI Invaders	Texas	TI 99/4A
33	Transyilvanian Tower	Shepherd	Spectrum
34	Testmatch	Computer Rentals	Spectrum
35	Pool	CDS	Spectrum
36	Grand Master	Quicksilva	Commodore 64
37	Motor Mania	Audiogenic	Commodore 64
38	Zip Zap	Imagine	Spectrum
39	Dictator	dktronics	Spectrum
40	Pssst	Ultimate	Spectrum
41	Frantic	Imagine	Vic 20
42	Miner 2049er	Big Five	Atari
43	Scramble	Quicksilva	ZX81
44	Talking Android Attack	Microdeal	Dragon
45	Attack of Mutant Camels	Llamasoft	Commodore 64
46	Spawn of Evil	dktronics	Spectrum
47	Hovver Bovver	Llamasoft	Commodore 64
48	Battle of Britain	Microsimulations	Spectrum
49	Panic	Interceptor Micro	Commodore 64
50	Abductor	Llamasoft	Vic 20
51	Armageddon	Ocean	Spectrum
52	Backgammon	Psion	Spectrum
53	Submarine Commander	Thorn-EMI	Atari 400/800
54	Maze Death Race	PSS	Spectrum
55	Zaxxon	Datasoft	Atari
56	Firebirds	Softek	Spectrum
57	Centipede	Atari	Atari 400/800
58	Space Adventure	Virgin	BBC Micro
59	Labyrinth	Commodore	Commodore 64
60	Terrordaktil 4D	Melbourne	Spectrum
61	Cookie	Ultimate	Spectrum
62	Star Raiders	Psion	Spectrum
63	Killer Gorilla	Micropower	BBC Micro
64	Blue Max	Synapse	Atari 400/800
65	Shadofax	Postern	Spectrum
66	Galaxians	Superior	BBC
67	Golf	Virgin	Spectrum
68	Frogger	Interceptor	Commodore 64
69	Andes Attack	Llamasoft	Vic 20
70	Asteroids	Bug Byte	Vic 20
71	Cosmiads	Bug Byte	Commodore 64
72	Traxx	Llamasoft	Vic 20
73	Caverns of Mars	Atari	Atari 400/800
74	Hungry Horace	Psion	Spectrum
75	Starship Enterprise	Silversoft	Spectrum

This chart is compiled from returns covering the last four weeks. Returns are drawn from a continuous retail panel of over 100 shops, and are cross-referenced to listings from wholesalers and multiple chain stores, weighted according to the number of outlets. This chart is copyright, MRIB Computers, 1983.

SOFT CLIMBERS

PCG's top 25 newcomers

1	**Jumpman**	Epyx	Commodore 64
2	**Hunchback**	Superior	BBC
3	**Choplifter**	Broderbund	Atari
4	**Warlord**	Lothlorien	Spectrum
5	**Orictrek**	Salamander	Oric
6	**Jumpin' Jack**	Imagine	Spectrum
7	**Devils of the Deep**	Shepherd	Spectrum
8	**Skyhawk**	Quicksilva	Vic 20
9	**Invincible Island**	Shepherd	Spectrum
10	**Beeb Art**	Quicksilva	BBC
11	**3D Combat Zone**	Artic	Spectrum
12	**Pimania**	Automania	Spectrum, Vic 20
13	**Galaxions**	Softek	Oric
14	**Painter**	A + F	Spectrum
15	**Munchman**	Solar	Vic 20
16	**Jungle Fever**	A + F	Spectrum
17	**Lazerzone**	Llamasoft	Vic 20
18	**Baja Buggies**	Gamestar	Atari 400/800
19	**Temple of Asphai**	Epyx	Atari 400/800
20	**Joust**	Softek	Spectrum
21	**Ship of the Line**	Shepherd	Spectrum
22	**Dot Man**	Anirog	Vic 20
23	**Pacman**	Atari	Atari 400/800
24	**Moonshuttle**	Datasoft	Atari 400/800
25	**Scrabble**	Psion	Spectrum

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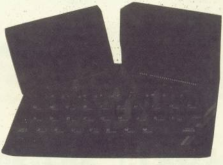

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THE TEENAGER WHO BROUGHT YOU APOCALYPSE, NOW

JUST WHAT KIND OF MIND DOES IT TAKE TO DREAM UP ADVENTURE GAMES? AND WHAT DOES IT TAKE TO SET UP YOUR OWN SOFTWARE COMPANY? DEIRDRE BOYD FINDS OUT

David Agulnik is one of the many thousands of teenagers who are computer games addicts. Now he is turning his hobby into a business, his time and devotion into money. He has just launched Apocalypse Software, an Oxford company producing computer games for Sinclair's Spectrum, Acorn's BBC, and Mattel's Aquarius.

Agulnik was born on 7 January, 1965, in Epping. His father's profession as a psychiatrist meant several moves for the family. David lived in Birmingham for the first two years of his life, then in Boston, Massachusetts for the next three. In 1970, the family settled in Oxford.

Agulnik describes his seven years at Dragon School in Oxford as 'undistinguished'. Then, aged 13, he went to Dartington Hall school.

'Everything the press has written about it is true,' he says, referring to the recent spate of publicity.

Agulnik became interested in computer programming in his first term at the school. 'It had just bought a Pet, 16K in ROM,' he recalls.

'Computer classes were not compulsory at Dartington. You could even say the school did everything in its power not to use the computer.

'I could go through a list of the things that were wrong,' Agulnik says now. 'You were allowed only to write in Basic, and could not use machine code. You could not use PEEK or POKE either, because the teachers thought you might damage the machine.

'No graphics were allowed. All programs had to be of a "serious nature" – certainly not a game.

'Each program you designed had to be written down in longhand and shown to the teacher, before he would authorise you to use the computer. Sometimes, you were even asked to flow chart it.

'I got round this bureaucracy very simply. I nicked the key to the computer room, copied it, and gave copies to some friends.'

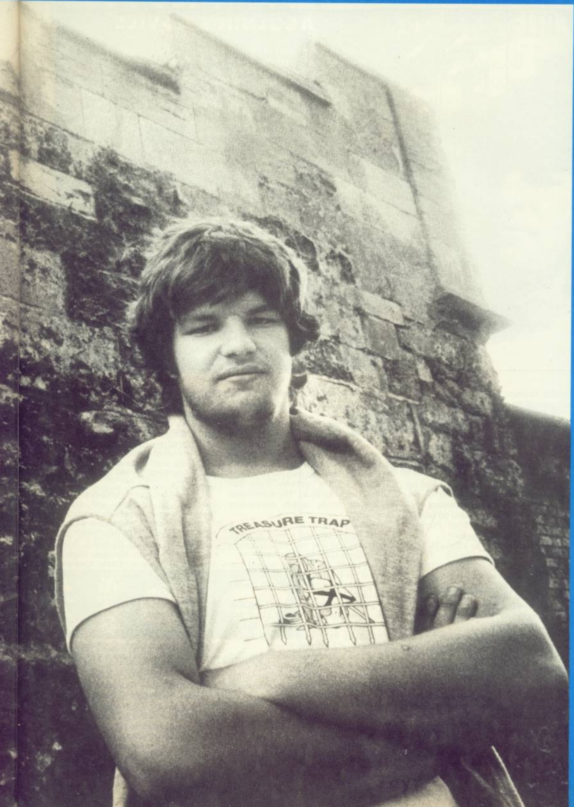
While still at school, Agulnik's spirit of adventure was reinforced by his membership of the Treasure Trap club. This is a society whose members bring fantasy adventure to life through role playing.

These fantasy adventures are set in Peckforton Castle, near Tarporley in Cheshire.

'I still try to get there every Saturday,' Agulnik says, explaining the source of his later ideas for Apocalypse's adventure games. The club's 1,700 members include people from Rabbit and Bug Byte software houses.

As well as the set adventures, members play monster parts for other adventurers, act in bar-room brawls, stage manhunts, festivals, banquets, and play *Killer* and *Defender*. Members can also fight with steel weapons in

►16


TREASURE TRAP

AGULNIK'S ADVICE

'I am in the process of formally registering the company, and in the meantime am working as *David Agulnik Trading As Apocalypse Software*. I am also registering for VAT – I want that settled before the company gets too big and it becomes a problem.'

'Programmers then get 25 per cent of the selling price of their game. So if we sell to the public direct and get the full price, the programmer will get 25 per cent of that price. If we sell 1,000 programs at a discount – say to a dealer – then the programmer will get 25 per cent of that. There is a profit, but a lot of money goes into packaging and advertising.

'We have commissioned a firm called Whiterose Graphics to design our packaging,' Agulnik says. 'The games are in EMI-type video boxes. I think up the ideas and Whiterose Graphics draws them up. Again, the relationship is informal.

'When it comes to advertising, I think about our market. This is generally the lower end: programs for computers costing about £100. Our advertising is split into two sections. There is a more expensive one for the BBC and another for the Aquarius and Spectrum. A new company called Design Studio is handling this.

'Running expenses were first helped by the Manpower Services Commission Enterprise Scheme,' he says. 'Basically, if you show you have at least £1,000 backing for your business, the scheme entitles you to £40 per week, to help run your company.

'It is a long process, but once you get through that, it is worth it.

'There have been no legal problems,' Agulnik says. 'My mother is a solicitor, which obviously helps. But I did wait until I reached 18 before setting up the firm.

'That is something I would say to anyone thinking of setting up their own business. If you are under 18 and things go wrong, legally your parents have to pick up the financial pieces and pay your bills.'

combat courses, join the archery club, and make their own custumes.

'I started in the computer games business at the Association of London Computer Clubs,' he says. 'I got talking there to *ZX Computing* editor Roger Munford, who was then on *Computing Today*. The following week I went to an exhibition to help him.

'By the end of the first day I had an exhibition badge. By the end of the second day I had met *Interface* and several other people. I ended up talking to Fiona McCormack from *Popular Computing Weekly* magazine.

'After that, I came to shows to help *Popular Computer Weekly*. I just turned up and helped on the stands, selling magazines, and moving stuff.'

The months spent on the exhibition trail trekking around Britain paid off. Agulnik now has one of the most extensive networks of microcomputer contacts in this country.

'I would talk to a guy, phone him up later and keep talking. Because the computer games market has grown so quickly, I knew most of the well-known names when they were just starting, like I am now,' Agulnik says.

'For example, I first met Jeff Minter at a show, and we got talking. I knew Eugene Evans before he became a superstar. Same with Salamander – it was just a Dragon company when I first met the people in it.'

In November last year, Agulnik met Bugbyte partner Tony Milner at the Northern Computer Fair.

'Why don't you start up, too?' Milner asked him. The idea appealed to Agulnik.

Originally, the firm was to be called Asgard. This was after Asgard Monitors, which is involved in *Dragons and Dungeons*, but the company was worried about clashes of interest.

'Then the name Apocalypse struck me – I didn't want a "smooth" name like Rabbit,' says Agulnik. 'My adventures are full of crash, smash, destruction everywhere.

'Apocalypse did not really have a formal start. I opened a bank account one week, and met my main programmer, Andrew Giles, another week.

'You could say the firm started formally at the beginning of August, which is when I rented the office and started working full time.

'I go to the office everyday,' Agulnik says. 'I usually get there at 11am and leave some time between 6pm and 12 midnight. I have been known to get back home at 2 in the morning.

'I have an informal relationship with everyone who works with me. I don't like working on a dictatorial basis. My relationship with Andrew, for example, is very informal. I come up with the ideas and Andrew comes up with the programs.

'Apocalypse has a number of programmers working on projects, but they don't do as much as Andrew. One programmer, Bob Varley, is designing an Aquarius Forth program. Geoff, our programmer in London, is working on BBC adventure games.

'When I started the company, we aimed at the Spectrum and BBC computer games market. I considered a lot of the US companies: Tommy, Mattel, Laser Computer, Humdinger Computer and, later on, Memotech.'

Agulnik feels that successful companies are built on the backs of new computers.

'I looked for a new computer to base our line on,' he says, 'and decided Mattel's Aquarius was likely to sell.

'There are more chain stores who are taking the Aquarius than not,' says Agulnik, 'Silica Shop, obviously, is selling it. So are John Menzies, Wigfalls, WH Smith, Argos, Great Universal Stores, Asda, Dickens and Jones, Selfridges and Lightning.'

'If the Aquarius achieves 100,000 sales, we can make quite a bit of money selling software for it.'

What of the future?

'In the next year I hope to move entirely into adventure games,' says Agulnik. 'After that, I am not so certain, but I might move into robotics. I will wait until Apocalypse makes enough profits from games, and then use that.

'I came up with ideas for three games this week. I also created a fantasy adventure and a fantasy role-play game. That's just for this week.

'That is what I like about our games. They are a mixture of computers and *Dragons and Dungeons*.' Agulnik summed up his own lifestyle: 'I really like an adventure'■

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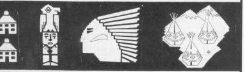

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GO ON...AD

THE SECRET OF THOSE SENSATIONALLY HIGH SCORES IS LIES I THE

ANTI-GLARE SPEX
jon riley

For the dedicated games player it seems like a dream come true. There you are, in the comfort of your own home: you've just unwrapped your very own micro, you've stocked up with all your favourite games and adventures, and your finger is itching to blast those aliens out of the sky.

For you, there'll be no more hanging round the local arcade, waiting for your turn, and going through 10p's like there was no tomorrow. Your game playing world is complete. Or is it?

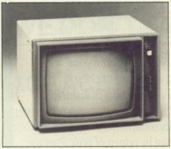
Is there anything else you need, by way of extra equipment, add-ons, and peripherals?

First of all, let's consider the television picture. It's all very well using the 26 inch job in the corner of the living room, but what happens when the family wants to watch *Coronation Street?*

The ideal solution would be to get a TV of your own, so that you can set up your computer system in your bedroom, out of the way of the rest of the family.

Buying a second TV may seem an unnecessary expense, but it's surprising how cheaply a reconditioned, ex-rental set can be picked up for. Sometimes you can find a colour model for £20 or less, and there's no doubt that a set reserved solely for computing will save an awful lot of family strife.

Of course, if you are very lucky/are very spoilt/have rich parents, you might have a monitor to use with your new computer. This not only gives a much better picture, but it means that there will be no squabbling over the TV set.



There is one point to watch with a monitor: some computers rely on the television for their sound facilities, and using a monitor will mean that the sound is lost.

However, very few of us are lucky enough to own monitors. As far as this article is concerned, we'll assume that you are stuck with a television display.

If you do go out and buy a TV specifically for use with your computer, make sure that the two are compatible. The Spectrum, for example, will not produce a good picture on certain makes of TV.

If possible, take your computer to the TV shop and try the two out together. Shop-owners will have no objection if you explain why this is necessary.

As a matter of interest, Sinclair has now redesigned the Spectrum to work with a wider range of TV sets. Unfortunately, this has had the unwelcome side effect of preventing some commercial software from working on the new 'issue 3' Spectrums.

So you've got yourself a cheap old television. The next requirement is a comfortable working area. A desk or table will do fine, but make sure that you have enough rom for the computer, the TV, a tape recorder, a notepad, and all the other odds and ends that you're going to need.

Make sure also that your chair is the right height and has a backrest. You are going to be spending long hours with your computer, and backache is no fun at all! Some shelves and drawers for books, magazines and cassette tapes would also be useful.

Okay, the working area is set up to your satisfaction. Now it's time to concentrate on the bits and pieces you are going to need to build up a complete games system.

The first absolutely vital requirement is a tape recorder for loading all those games into your computer (I'm assuming here that you don't have a system with disk drives). You can get away with something very cheap here. The tape recorder I use cost me £9.50 brand new, and has served me well for 18 months.

Be wary of using hi-fi equipment. The average micro cannot deal with stereo signals, and the output from most hi-fi systems is too powerful. A cheap mono recorder is just the job.

There are even 'computer-compatible' tape recorders available – in fact, W H Smith has just produced a new model – but these are generally much more expensive, typically around £30 to £35.

Of course, if your computer is a Vic 20, Commodore 64, or Atari, then you have no choice in the matter. These machines use their own special tape recorders, and ordinary tape recorders will not work with those computers.

Try and get a recorder with a tape counter built in. This saves a lot of time when you're searching through a tape, looking for that great game that you recorded last week.

If you are BBC or Sinclair owner, you have a further choice – the BBC supports the Hobbit tape system, and Spectrum owners can use the new Microdrive.

The Hobbit and the Microdrive are both very sophisticated tape systems, approaching a disk drive in terms of speed and ease of use. But, in both cases, a standard tape recorder is likely to be necessary for loading commercial software.

An add-on which some people think of as optional, and others think is vital, is a joystick. In this area the micro user is spoilt for choice. There are dozens of different types available, and it is often very difficult to know which sort to get.

Spectrum owners, in particular, will find themselves confronted by a plethora of different makes, and software that will operate one make is unlikely to work with another.

The Atari joystick, with its D-shaped connector, is probably the nearest thing to a 'standard' joystick, and most of the

D ON...'AVE FUN!

IN THE PERIPHERALS AND OTHER STUFF YOU STICK ON, SAYS SUPER ZAPPER STEVE MANN.

OK I GIVE UP YOU WIN
OK I GIVE UP YOU WIN
OK I GIVE UP
OK I GIVE UP YOU WIN
2000K RAM

interfaces on the market for the Spectrum are designed to use this type of stick.

The machines have a built-in joystick, and machines such as the Vic 20, Commodore 64, BBC, and Dragon have built-in joystick ports.

The Spectrum and the Oric have no provision for joysticks in their basic form. In each case you will need to buy an interface that plugs into the computer's expansion port, and that puts the cost up a bit.

A joystick is absolutely vital for the serious games player. There's no way you'll be able to get a record score on *Donkey Kong* if you have to rely on the keyboard to play the game.

ZX81 and Spectrum owners will find this even more so. The keyboards on these machines are difficult enough to use at the best of times; when fast reactions are vital, the 'rubber key' keyboards are handicap impossible to overcome.

If you are adventurous, you might be interested in the non-standard type of joystick. The Sord M5, for example, supports 'joypads', which consist of a disc contained in a handset. The disc is rotated in the direction required, and the usual fire button is provided.

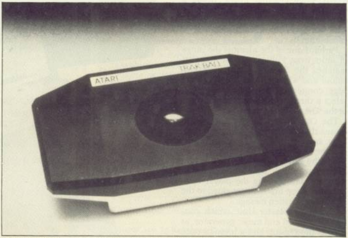
There is also the Trak-Ball, which uses the same principle but which, as its name suggests, contains a rotating ball. These are said to give a better response and to be easier to use than conventional joysticks, but they do take a bit of getting used to.

Probably the ultimate in joystick technology – the Rolls-Royce of joysticks in my opinion – is the model that works on the light-sensitive principle. Called the 'Trickstick', this uses photo-transistors and light-emitting diodes and the player operates it by simply covering up the phototransistors with his/her fingers. The Trickstick has appeared only recently, and will sell at around £30.

How much you have to spend on joysticks depends on your machine. An Atari joystick that will simply plug into a Commodore 64 will cost you just under a tenner, but a Kempston 'Competition Pro' joystick and interface for the Spectrum will cost you £25.

For the Spectrum, it is probably better to buy one of the new 'programmable' joysticks. There are two or three different types of these, and they should work with almost any software. 'Programmable' means that the player programs the joystick to mimic the action of any key. Programmable joysticks are suitable for games that are designed for joystick use, or for games that are meant for keyboard operation.

Another accessory that may well be useful for game playing is a computer printer. Although not necessary for 'blob-chaser' games (such as *Space Invaders* and the like), a printer really comes into its own when playing games



The Atari Trak-Ball: easier than a conventional joystick, some say.

of strategy, such as adventure games or chess. It's surprising how often you will ned to make a record of a screenful of information.

Printers vary in cost and in standard of print. At one end of the market is the Sinclair printer, which can now be bought for less than £40. At the other end is a daisywheel printer that produces 'letter-quality' print, and which can cost up to £1,000 or even more.

A printer is certainly not an essential purchase, but once you have one, you will wonder how you ever managed without it.

For someone who is not going to use a printer for word processing or letter-writing, a Sinclair printer is fine – there are interfaces available to allow many different makes of computer to use it.

Another low-cost choice is the Tandy four-colour printer. This uses tiny pens to literally 'draw' text or graphics.

It's hardly the quickest machine, but the quality is good, and it has the advantage of using ordinary white paper instead of the Sinclair silver thermal paper.

The Oric printer is almost identical to the Tandy, and should set you back about £170.

There are many other accessories that are designed to make life easier for the game player, and although none of these are really essential, they can all enhance your enjoyment.

The Spectrum supports the vast majority of these 'non-essential' add-ons – probably because its basic design omitted many features in the interests of cost-cutting.

Add-ons that will particularly enhance games playing are those which give speech capability, together with a range of re-programmed sounds.

Oric owners have four 'games' sounds built in: SHOOT, ZAP, PING, and EXPLODE and other machines have sound capabilities that allow these and other noises to be easily programmed.

The Spectrum, with its somewhat weedy single-channel BEEPS, needs a little help in this direction, and there are several add-on sound packs that give three-channel sound, music, and speech capabilities.

Perhaps one of the nicest is the range of units from Fuller: using a box that matches the Spectrum in design and colour and which simply plugs into the edge connector at the rear, you can select a three-channel sound generator or the 'Orator' speech unit.

The Orator uses allophones, which means that words are built up phonetically, and the system thus has an almost infinite vocabulary.

For the game player, this means that audible warnings can be given when danger looms, freeing the player from having to keep his/her eyes glued to the screen for a written mesage.

The Fuller Master Unit, which contains the sound and music generator, as well as the Orator, and a joystick port, can be purchased for around £50, and has the added advantage of enabling both cassette leads to be left in place. No more lost programs when you forget to remove a lead when SAVEing.

So that's about it. This has only been a brief run-down of accessories and peripherals that will help you turn your computer into a complete games system. I hope this piece will have given you some ideas of your own.

Obviously, the number of 'extras' required will depend on the computer you have bought, or have been given.

If you are starting from scratch, you should remember that the computer you buy should depend on the use you have in mind.

For playing games it is best to go for something that supports a wide range of cheap software. It's no good plumping for an out-of-the-ordinary machine with no software support.

Remember also to keep an eye on the computer magazines. These all contain large amounts of advertising and are the ideal advance warning of new software/peripherals/computers.

Above all, think before you buy: is that joystick the man in the shop was so keen to sell you *really* the best for your machine in your price range?

Remember also that you might just recoup the cost of your add-ons if you devise a stunning new game and then sell it. And however much enjoyment you get from playing commercially produced games, you will get a lot more from writing your own.

Happy gaming!

The Spectrum Microdrive: the next best thing to a disk drive. It holds up to 85K according to the manufacturers, and loads a typical 48K program in as little as 9 seconds.

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ZX Microdrive
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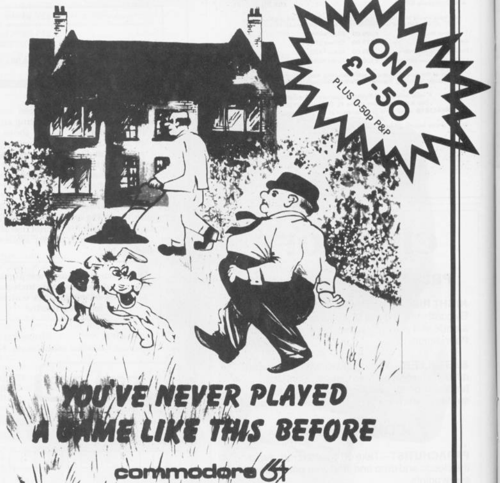

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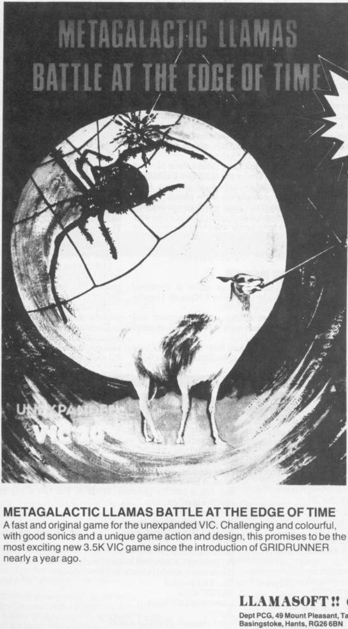
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First read very carefully the instructions below, and the clues on the opposite page.

Then, using your skill and judgment, answer the **two** questions in each of the clue verses.

The answers to these questions will lead you along a trail, and at the end of the trail is our Mystery Location.

If you successfully identify our Mystery Location, AND you manage to identify the 15 places of interest we pass along the way, you could be the winner of our star prize.

To follow our trail, you'll need to consult two Ordnance Survey maps: the reference numbers of the maps you'll need are hidden in the first verse.

Then with the help of the maps, and the following 15 verses, you can begin answering the questions.

The **first** letters of the answers to the **first** question in each of the following verses adds up to a 15-letter anagram of the Mystery Location – an anagram which you must solve.

The **second** question in each of the 15 verses asks you to identify a place or feature of interest along the way.

When you have answered all the 30 clues, and solved the anagram, you must send all 30 answers, together with the name of the Mystery Location, to: Deirdre Boyd, Colour Genie Competition, *Personal Computer Games*, 62 Oxford Street, London, W1A 2HG.

The mystery trail can be revealed in two ways. You can work out the solutions from Ordnance Survey maps and reference books which are available at most major public reference libraries.

Alternatively, and more enjoyable for the whole family, you can follow the trail by car or bike. Hard-pedalling Richard Peat of Lowe Computers – who so generously donated the prizes – cycled the course in a day.

However, we must stress that physically following the trail is not necessary to enter the first part of the competition.

HOW TO ENTER, PART 2

If you win the first part of the competition, AND if you own a Colour Genie, you are eligible for the special bonus prize. Just add the serial number of your Colour Genie to your entry. Then enclose photographs, or copies of photographs, of each of the four places of interest marked with a * in the clues.

You do not need to take these pictures yourself. Under the rules, you can supply postcards, or copies of pictures from books or magazines of the places.

If you win, your purchase money will be refunded up to the value of £300, and the whole family will enjoy a weekend in a luxury hotel of our choice, with a gift from us of a video camera and recorder worth £600, to capture the event.

THE RULES

All solutions must arrive at *Personal Computer Games* by 5.30pm on Tuesday 6th December 1983.

No late entries can be accepted, and proof of posting is not regarded as proof of receipt.

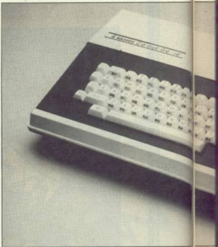
Employees and their relatives of Lowe Computers, East McFarland Advertising and VNU Business Publications are not eligible to enter.

In the event of a tie, contestants will be set an additional question by Lowe Computers. The sender of the first correct answer to be opened will be the winner.

The winner will be announced in the next *Personal Computer Games*.

The judges' decision will be final.

[We would like to acknowledge the help of PG of the Special Bike Squad, DIM.]

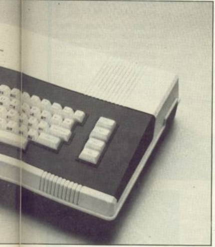


The Colour Genie

SPECIFICATIONS

Processor:	Z80, 2.2MHz
Memory:	32K RAM (30K available), 16K ROM
Language:	Microsoft extended Basic
Graphics:	Eight colours, eight hues and tints Mode A has a screen size of 40 x 25 (1,000 screen locations) for text and 320 x 200 for graphics; Mode N has 160 x 102 for highly effective pixel graphics 128-character keyboard 128 user-definable characters
Sound:	Independent or simultaneous three channel, with eight octaves on each Three-note chords Programmable duration, volume and pitch White noise, special effects, full enveloping
I/O ports:	Two 8-bit parallel RS232C serial Cassette at 1200 baud Audio UHF channel-36 PAL+sound Expansion/cartridge/processor bus

OUR GENIE!



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- Full cash refund on any Colour Genie equipment you already own to the value of £300.
- Weekend for all the family in a luxury hotel of our choice.
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Enter Penda's capital, a place in history
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Three kings are interred in St Wystan Crypt
Name two and at the post you'll not be pipped.

Go due north, avoiding dragons and green men,
Pass o'er Romand road, watch iron horse, ye ken.
Right to devil's elbow – three miles less a quarter this lies.
Date what was first in its day and gives word to smiles.

Through hall and park to gateway site
Sally Army's co-founder was born here on night.
Keep the ball rolling, don't look backwards,
Tell us, too, about up'ards and down'ards.

Pass the Hole in the Wall, there's no Butch or Sundance –
Wendy Craig's nanny gave them no chance,
Not permitting such bold rogues on this estate.
But George Eliot's novel on Treddleston does equate.

Southeast by brook to the place of the deer,
Or so it was called by Guthrum's vikings we hear;
We need not than name but the building John Lambe made®
And the products of 1904, 1750 that in it did not fade.

Proceed north along river, there'll be no falters
You're on the right track tho' no one takes the waters
Yet where in Quebec did General Wolfe ascend these?
Tis not your folly® we want now, please.

A thermal spring proves a fishy milestone;
Sir William Cavendish in 1552 would have flown
Away 10 miles – or is it leagues – to a fairer abode.
Here 'built for a tsar who never saw it' is the code.

Through the village that moved and over river
Past Victoria's clock® with fear do quiver
Where London tailor's deadly parcel did come.
The open-air church of the Reverend is your sum.

Below fools, through white rake, past Rolley low
Big rocks appear shortly, rest here ere ye go.
Below in the dale you'll be in trouble dire
If you can't find what excited John Ruskin's ire.

Where the Wye leads follow to below ancient castle hill
A mistake well made in 1859 fits the bill.
Answering that and the next would be great –
From which century does the Gothic bridge date?

Climb tumulus then low for inspiring sight,
England's purest stream will give you the light.
1668 is the year and fasting the fad
Who fasted more than any other must have been mad.

The village of many ash trees leads to a blend
Of herbs and grain where your way shall wend.
An ancient burial mound gives the solution
As does the age it held congregation.

Follow modern way, ignoring Roman road,
A dangerous curve now is the lode.
The route has changed from original aim
Stating this brings you nearer the claim.

Edging by fish and superstar, the end is nigh
Dark rocks point your way, by and by.
An elementary clue coems your way
As you tell what local animal they portray.

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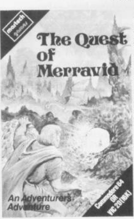

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PCG RESULTS

INTREPID ADVENTURERS LET THEIR BRAINS RUN RIOT WITH IDEAS FOR OUR COMPETITION

The *Personal Computer Games'* office has been swamped with entries for the adventure game competition in our last issue, and we were surprised by the high standard. We finally managed to whittle down the numbers to a top dozen for our panel of games enthusiasts to judge.

The entries were a combination of traditional text-based adventure games and arcade-style games. One entrant, Dave Cornwall, went the whole hog with *Murph the Moth Meets the Space Invaders.* The intrepid adventurer plays the part of Murph who works his way through all the popular arcade games.

We had characters from fairy tales, such as Jack in the Beanstalk, mad scientists, spirits, and policemen, but the story that wins the CGL M5 home computer is called *Quest for a New Beginning* by John Sibley.

R M Stewart came a very close second with two of his entries, *The Hexagon Factor* and *The Island of Morassie* and he also sent in three other excellent ideas.

The other runners-up are *The Golden Seal* by A K Gosling, one of the best games we had in programmability terms, and *Time-Hunter* by L Isbister.

All three runners-up will each receive two books published by Century – *The Intimate Machine* and the *Dictionary of New Information Technology.*

Below, we print the winning entry, and overleaf, extracts from the four runners-up.

QUEST FOR A NEW BEGINNING

Many years have passed since the holocaust decimated the human race and contaminated the Earth. Scientists who foresaw the ultimate self-destruction of the human race built a computer – massive, powerful and self-regenerative – and gave it the power to replenish the Earth after a cataclysmic disaster such as the holocaust.

But the holocaust came too quickly and the upper section of the computer building was totally destroyed, and with it, all the people who could operate the computer.

The entrances to the huge underground section of the computer building were impenetrably blocked by tonnes of debris, cutting off all hopes of activating the computer.

The 12 activating circuits were lost, hidden in the hundreds of rooms below ground.

If all these circuits could be located intact, and inserted into the 12 correct slots of the computer, it would be activated and carry out the purpose it was designed for … and the Earth would be reborn.

One of the surviving inhabitants of the holocaust (that is, those who were orbiting Alphamestor Fourteen) has returned to Earth in the hope that there is some truth in the legend told by his parents.

The legend said that somewhere on Earth there was a computer that would give the Earth its soul back, and the human race a second chance.

Now after three years of constant searching across the cold, dark, barren deserts which the land masses had become, avoiding radiation pits, and fallout mists (both lethal), he had found an opening, which he widened and climbed through.

He found himself in a corridor, lit dimly by slightly luminous walls.

He searched room after room, usually finding nothing, but now and then finding a useful item – a teleporter, blaster, charge packs, a teddy, and other such items. The blaster proved to be useful against some of the radiation-mutated creatures that followed him, trying to kill him.

The radiation-bleached air gradually took its hold, making his progress more and more difficult. The blaster charge packs were quickly used up and he had to be continually alert. One rad-bite spelled a slow and painful death, and once a rad-beast was on your tail there was no turning back.

As he trudged on deeper into the complex, automated defences became more numerous.

These could shoot you down with fiery-red maser bolts, use steel shutters to seal you in and suffocate you, electrocute you, and taunt you with horrible abuse from their synthesised voices.

One by one he found the missing circuits. Some were hidden under dust and debris where they had been left, others were more carefully protected by cunning traps that could mean death in an instant.

He found that the strange symbols found at random intervals along the floor gave subtle clues to the whereabouts of the circuits if you deciphered them correctly, otherwise they could send you round in eternal circles, disorientating you, and slowing your progress.

Sometimes music would be heard somewhere far away. If he headed towards it, it would stop, but it could give clues if he listened for long enough.

Once he had gathered together all the circuits, he had to find a hidden doorway that gave access to the computer.

The signs gave clues once more but only if you looked at the right time.

After a great deal of patience and perseverance he came to a panel in the wall of a corridor.

Set into the panel were two buttons. A sign below flashed up. It read:

'ONE BUTTON OPENS THE DOOR. ONE WILL KILL YOU'

Carefully he thought, trying to work out a possible way to tell which button did what. But there were no clues. Guessing was the only way. He hugged the teddy and reached out, praying, as he pressed one of the buttons...

Slowly a crack appeared in the wall. It widened, becoming a doorway. He stepped through into the room beyond, and the wall closed behind him.

Before him stood the computer, silent and majestic, its huge monitor dark, and below that, 12 slots, waiting for the 12 circuits he had found.

He knew he had a limited amount of time to insert the circuits in the order that activated the computer. Otherwise the automated defences would recognise him as an intruder and mercilessly destroy him.

He put in the circuits. Wrong! He swopped a few. Wrong again!

He tried again and again, as time slipped by.

Then he must have got the sequence right, because the lights grew brighter, the computer hummed and a message appeared on the monitor.

'ENTER CODEWORD TO BEGIN REPLENISHMENT.'

Codeword? What it could be he had no idea, the possibilities were infinite.

Perhaps it had been in one of the rooms or corridors and he had missed it.

Or perhaps the clue was in the room somewhere. If he couldn't find it he would be trapped and the earth would be doomed.

Perhaps teddy knew the codeword? It must be here somewhere. He knew it must be.

Everything depended on it.

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PCG RESULTS – RUNNERS-UP

HERE ARE SOME OF THE IMAGINATIVE DESIGNS WHICH NARROWLY MISSED WINNING

The Hexagon Factor

by R. Stewart

The Hexagon is a top secret government establishment doing research into nerve gasses and germ warfare.

Our hero (the player) is the head of security, and the action takes place over a holiday weekend in the Hexagon.

In the computer hall is the powerful computer system entitled 'Castor', which controls all doors, windows, communications, heating/ventilation, CCTV and normal personnel and business records.

Unknown to our hero, Castor has been programmed to slowly malfunction during the weekend, in order to allow two intruders to steal the formula for the latest secret weapons.

To add to the problem, the building's water supply has been doctored with a strong sedative.

Luckily, Castor has a brother computer known as Pollux, which is only used if Castor breaks down.

During the weekend Castor's malady becomes more and more of a problem as telephone lines are cut off and the electrified fence is charged with a lethal voltage. Confusion, death and mayhem are the result.

Doors open and shut at random and no-one can leave the grounds or enter ... except for the two formula-pinchers.

The player must counteract the destructive tendencies displayed by Castor. Some of the computers reports are true, others false ... but all have to be acted on. Pollux eventually begins to gain power and all 'his' reports will be correct.

Eventually the intruders must be captured and stopped, and Pollux brought 'on line' to restore communications and access.

The Island of Morassie

by R. Stewart

Summoned to the small island of Morassie, off the west coast of Scotland, our hero (the player) learns from the local priest, Father Mulcahy, that the island houses one of the gateways to hell, and that the whole area is in the grip of devilish evil forces.

The player must rid the island and its inhabitants from demonic possession and control, and close the gateway forever.

Characters include the hero, who has a vast knowledge of occult lore and is a psychic investigator; Ezeron, the player's guardian angel, who is invulnerable and can materialise objects requested by the hero; Ezeron's companion, Petra, a mischievous female sprite, and 17 evil adversaries.

The enemy are eight demons, two poltergeists, tulpas and banshees. There are also imps, which are black, smoky friends of demons.

The most deadly enemy dwells in Castle Morassie, set on an island in a loch. He is guardian of the gateway and must be challenged last.

The two poltergeists are invisible, cause chaos, and may possess children. A tulpa is a human form manifestation materialised by its controller's mind and only ceases to exist on the demise of its controller. Banshees are female spirits who herald death for householders who see them.

Watch for 'possession' of the inhabitants ... such people will act normally. They can be identified by their abhorrence of religious words.

Originality? It's set in Scotland! Otherwise it's the old battle idea, I admit, though the player needs to have some knowledge of occult/psychic lore.

Time-Hunter

by L. Isbister

Using a time machine you can travel through 10 different eras (including your own), looking for six keys to a box which are scattered throughout a cave system.

The cave system alters as you travel through time – in some eras the caves have fallen in or haven't even been made yet, so you have to be careful how you travel or you'll end up in solid rock!

You can estimate how old a cave is by the working of the rock wall. For instance rough surface = made no more than two previous eras ago at most.

As you travel you have to recharge your time machine by placing it on an altar. But the inhabitants of each era have moved this to a different cave.

If you are really unlucky, the altar may be stored in a cave-in so that you will have to go backwards or forwards in time to find the cave that will/did hold the altar in that particular era.

Several eras have exits to the surface. Unfortunately, if you stay out too long you'll die.

You get a partial map of the cave system in your original era.

Several of the eras have inhabitants who may help or attack you.

If attacked and you win, then they will help you, but if you make a mistake and lose, you die!

The Golden Seal

by A. K. Gosling

This adventure takes place in ancient Rome, where the successful enjoyed riches and power, but where death could be spectacularly cruel.

The adventurer's task is to obtain the first seal of Augustus (he used three during his reign).

This would be of great political value to the current emperor, Domitian, since it would be seen by all as a sign that the Gods had favoured him.

After obtaining the seal, therefore, it must be taken to the emperor's palace and handed over; the adventurer will receive a valuable reward.

Graphics are not essential, and would depend on available memory. However, they could be used *Hobbit*-style to show major locations, and the splendour of ancient Rome could add to the effect.

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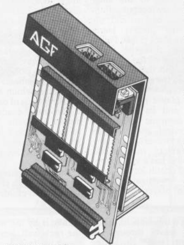

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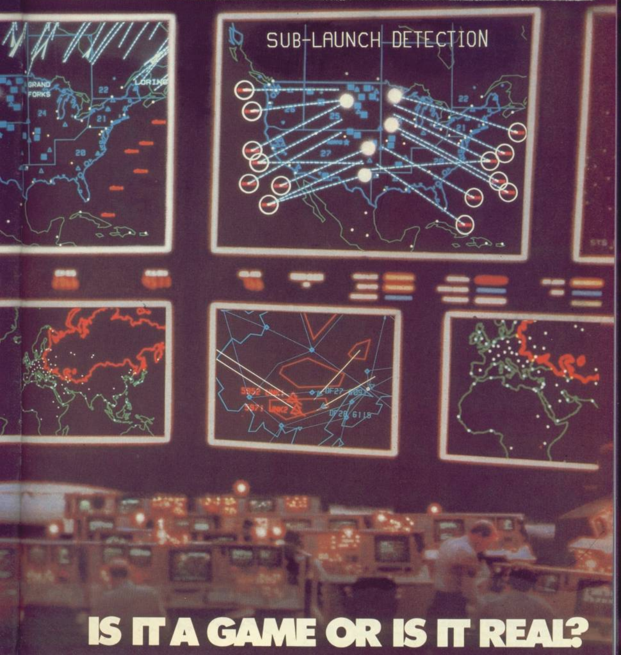

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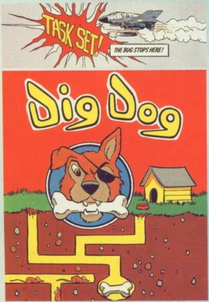
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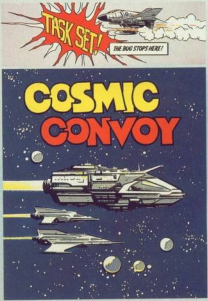
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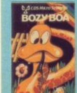

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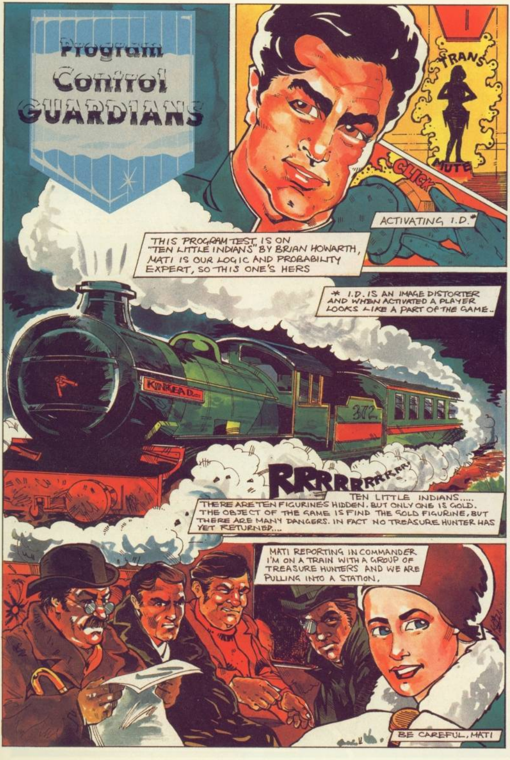
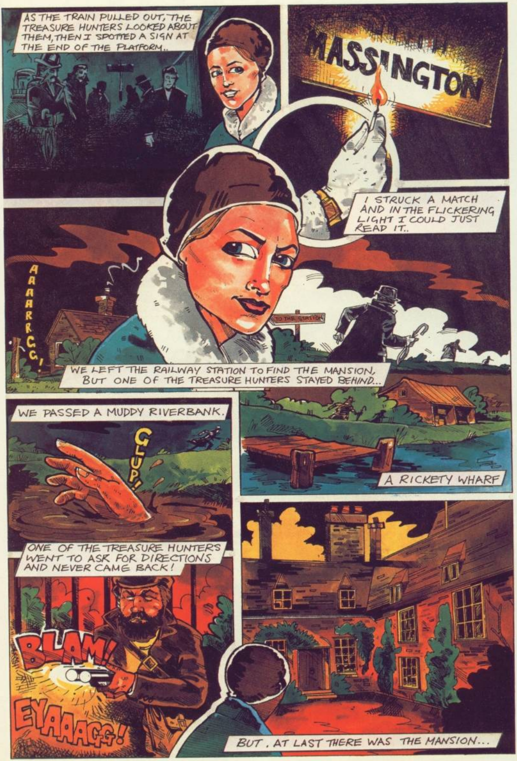
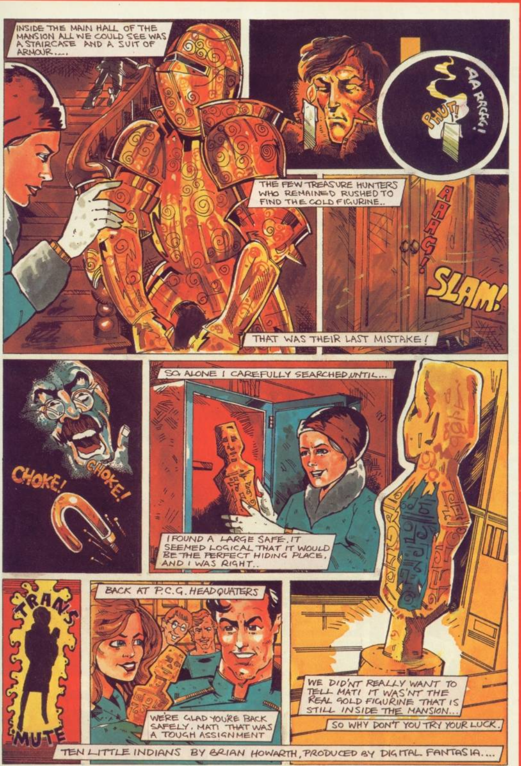

Program Control GUARDIANS
TRANS
MUTE
CLICK
ACTIVATING I.D.*
THIS PROGRAM TEST, IS ON "TEN LITTLE INDIANS" BY BRIAN HOWARTH, MATI IS OUR LOGIC AND PROBABILITY EXPERT, SO THIS ONE'S HERS
* I.D. IS AN IMAGE DISTORTER AND WHEN ACTIVATED A PLAYER LOOKS LIKE A PART OF THE GAME.
KINKEAD
372
RRRRRRRRRRR
TEN LITTLE INDIANS.....
THERE ARE TEN FIGURINES HIDDEN, BUT ONLY ONE IS GOLD. THE OBJECT OF THE GAME IS FIND THE GOLD FIGURINE, BUT THERE ARE MANY DANGERS. IN FACT NO TREASURE HUNTER HAS YET RETURNED...
MATI REPORTING IN COMMANDER I'M ON A TRAIN WITH A GROUP OF TREASURE HUNTERS AND WE ARE PULLING INTO A STATION.
BE CAREFUL, MATI


AS THE TRAIN PULLED OUT, THE TREASURE HUNTERS LOOKED ABOUT THEM, THEN I SPOTTED A SIGN AT THE END OF THE PLATFORM..
MASSINGTON
I STRUCK A MATCH AND IN THE FLICKERING LIGHT I COULD JUST READ IT..
AAAARRGG!
TO THE STATION
WE LEFT THE RAILWAY STATION TO FIND THE MANSION, BUT ONE OF THE TREASURE HUNTERS STAYED BEHIND...
WE PASSED A MUDDY RIVERBANK.
GLUP!
A RICKETY WHARF
ONE OF THE TREASURE HUNTERS WENT TO ASK FOR DIRECTIONS AND NEVER CAME BACK!
BLAM!
EYAAAGG!
BUT, AT LAST THERE WAS THE MANSION...


INSIDE THE MAIN HALL OF THE MANSION ALL WE COULD SEE WAS A STAIRCASE AND A SUIT OF ARNOUR....
AARRGH!
PHUT!
THE FEW TREASURE HUNTERS WHO REMAINED RUSHED TO FIND THE COLD FIGURINE..
AAAAG!
SLAM!
THAT WAS THEIR LAST MISTAKE!
CHOKE!
CHOKE!
SO ALONE I CAREFULLY SEARCHED, UNTIL...
I FOUND A LARGE SAFE. IT SEEMED LOGICAL THAT IT WOULD BE THE PERFECT HIDING PLACE, AND I WAS RIGHT..
TRANS MUTE
BACK AT P.C.G. HEADQUATERS
WE'RE GLAD YOU'RE BACK SAFELY, MATI THAT WAS A TOUGH ASSIGNMENT
WE DIDN'T REALLY WANT TO TELL MATI IT WAS'NT THE REAL GOLD FIGURINE THAT IS STILL INSIDE THE MANSION...
SO WHY DON'T YOU TRY YOUR LUCK.
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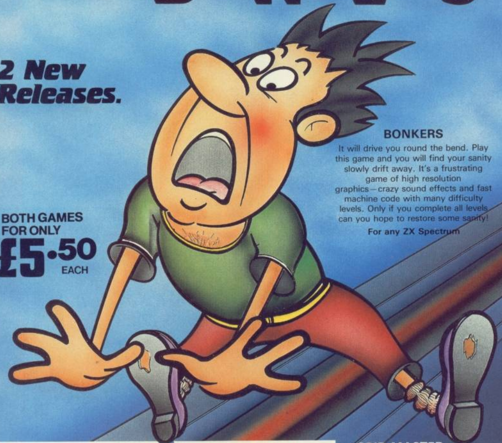

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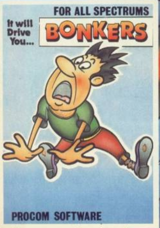
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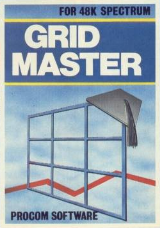
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SCREEN SCROLL

GAME: PINBALL WIZARD
MACHINE: VIC 20
PRICE: £7.95
FROM: TERMINAL SOFTWARE
FORMAT: CASSETTE

A change from the zap it, crunch it, alien space ship learns VisiCalc packages, this game – by good use of graphics and accurate simulation of a pinball's movement around a table – has a very playable feel to it, and it is easy to forget that the rolling, tumbling ball is acting under orders, and not gravity.

I have never been a pinball addict, but this package, with three flippers, bumpers, rollers, a jackpot, and a slingshot, got me to a point when I felt Roger Daltry might well be pushed to a poor second should they ever film *Tommy II*.

The facility for a two player game, and a 'nudge' adds to its attractions, and unless you are going to build your own with Bill Budges Kit (and you would need an Apple II), this is as good as you will get. **EF**

GAME: SUBMARINE COMMANDER
MACHINE: VIC 20
PRICE: £24.95 approx.
FROM: THORN/EMI
FORMAT: CARTRIDGE

It must be stated at the start that this is a very well produced simulation package, rather than the set-'em-up-and-fire game found in many arcades.

The action is set in the Mediterranian and your reviewer, having glanced through the comprehensive instruction manual, felt confident that no ship between Gilbraltar and the Gulf was safe. Within five minutes, the submarine in question had been grounded off Libya, sunk by enemy fire, and had become hopelessly lost.

Returning to the manual, I found that the instruments offered not only useful but invaluable support. So rule number one is to ensure you know what those strange and extensive dials and needles actually do.

The central area of the screen offers three modes, various maps, periscope, and the sonar screen. The map is of the whole Mediterranian and gives only the most general of impressions (a flashing dot) of where you are. The location of the enemy has already been shown to be in the range on the final mode, the sonar screen.

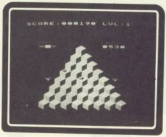
There are many, many more things to think about in this game, and tactics are very important if you are to avoid becoming a 'bilge pumper' on the final ratings. To give you an impression of the complex nature of the instrumentation, you have to keep an eye on: attitude, compass, clock, torpedo supply, fuel supply, battery charge, speed (in knots) sonar screen (map and periscope), depth gauge – and that is only a third of them!

All in all, I rather think an honorary commission in the senior service should be the reward for a good score in this particular game. **EF**

GAME: Q*BERT
MACHINE: BBC MODEL B
PRICE: £7.95
FROM: SUPERIOR SOFTWARE

A title like *Q* Bert* is wierd – it doesn't mean anything, and fails to suggest aliens or magic kingdoms, or any sort of stuff we're used to. So, what's it all about? The big clue is that the first syllable is 'cube'.

Imagine a pyramid made of cubes, where each horizontal face of a cube has two adjacent sides being the bottom of a step up, and the other two being the front edge of a step down. If that addles your brain, you'll find a diagram on the cassette cover.



When *Q* Bert* comes up on the screen – it is an elegant piece of graphics – one face of this pyramid floating in black space. As Q Bert (a character unfortunatly too small to take on much character) you must step from cube to cube, thus having four choices of movement.

Every cube you step on changes colour, and the object is to colour the whole pyamid. It's easy to step off the pyramid and fall away, but the real danger is to step on the snake.

The snake starts at the top of the pyramid, and does a rapid random crawl to the bottom, when it reappears at the top, and the cycle starts again. Falling off the pyramid or meeting the snake loses one of your three lives.

Two spinning discs floating adjacent to the pyramid can be stepped upon to lure the snake away, and take you to the top of the pyramid.

The whole game is very cerebral, and it can whip up the same sort of frenzied addiction Rubik's cube used to do. Alternatively, it can drive you mad. The whole thing happens very fast, and the snappy rhythm of the sound effects is hypnotic.

This is a simple, elegant mind game that's made exciting by its speed. It could lose you friends as you pass up their company for Q Bert's. **WD**

GAME: PONTOON, HI-LOW, MINI ROULETTE
MACHINE: VIC 20
PRICE: £5.50
FROM: MR CHIP
FORMAT: CASSETTE

For those people who still remember what playing cards are, here is another chance to don the green eye shade, light the cigar, and snarl 'Deal!' – the only difference being your opponent does not drink red eye, and keeps the ultimate poker face.

The program allows you £50 to start with, and your bet may not exceed £9 per game. This excludes bets on consecutive cards in the case of *Pontoon* and *Hi-Low* (you remember, that's the one that keeps Bruce Forsyth in false teeth).

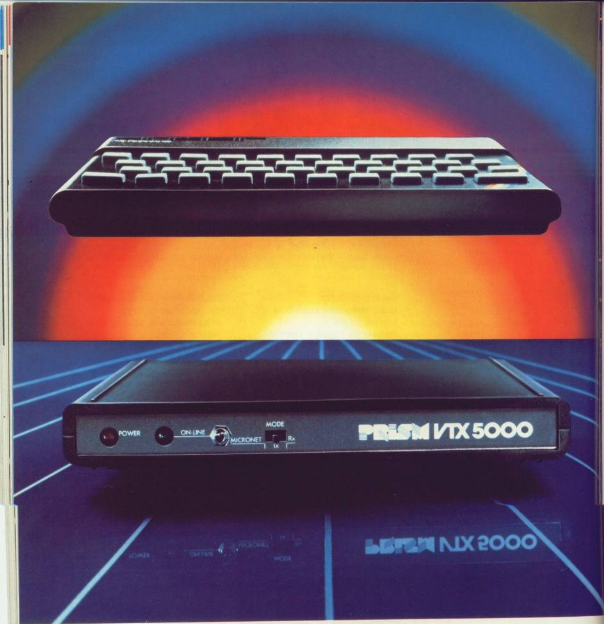
It is, by definition, a very straightforward package, but very amusing for the would-be gambler. Although I am certain that the computer does not cheat, the idea that it knows what my cards are before it 'deals' its own seems, fishy, and I am certain that this is why I lost my £50 in an embarrassingly short period of time!! **EF**

GAME: CHOPLIFTER
MACHINE: VIC 20
PRICE: £24.95
FROM: AUDIOGENIC
FORMAT: CARTRIDGE

This is not, as the title may suggest, an everyday story of a muscle building butcher, but a well written helicopter rescue game.

The object of the game is to rescue US 'hostages' from an unnamed foreign country. It is not surprising that they wish to escape, since this distant land is filled with prisons, tanks, fighter aircraft, and killer satellites – without even a sniff of a MacDonalds.

The helicopter base is located to the east of the enemy border, and the mission takes the helicopter west in search of the hostages – who run ▶ 46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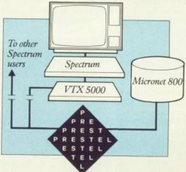

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SCREEN SCROLL

round waving what must be double jointed arms in delight at the prospect of returning to the good old US of A.

Landing the helicopter gives them the break they are looking for, and they leap aboard without a second invitation.

The home team, however, takes great delight in bombing, colliding with and shooting at anything that moves, and all in all, the general impression is that US helicopters and their contents are definitely in 'season'.

Fortunately (and not surprisingly), the helicopters are armed, and may fire back when in the air. Once the first set of hostages have been picked up, the helicopter has to shoot up prisons to release further freeloaders, and this is quite tricky to master.

The game requires a joystick, and since the rotate and firing buttons combine, this is a recipe for disaster to the uninitiated.

Scenario: have confidently lined up helicopter gun on enemy satellite, engage fire button...your craft promptly turns through 90 degrees, which is more than a bit disconcerting!

However, once the controls are mastered, this is a compulsive game, with both good graphics and a satisfying 'chop-chop' sound from the helicopter blades. **EF**

3D BOMB ALLEY
For the BBC Micro Model B.

GAME: 3D BOMB ALLEY
MACHINE: BBC MODEL B
PRICE: £7.95
FROM: SOFTWARE INVASION
FORMAT: CASSETTE

It's inevitable that current events must influence ideas for games, and it's probably more than a coincidence that *3D Bomb Alley* reminds me of the Falklands. It even opens with a fairground version of Rule Brittania.

The screen then reveals nicely drawn green and brown hills, sloping down into a channel of water, with the sea in front of you. Three battle ships are anchored there, and you're manning an anti-aircraft gun.

An enemy plane starts off as a black speck, which can be anywhere in the sky, and expands steadily to become the clear silhouette of a fighter jet. If the plane makes it unscathed to overhead, it drops a bomb, and a ship is lost.

The farther away the enemy plane is when you shoot it, the more points it is worth, but the nearer the plane come, the louder the explosion when you hit it.

The game starts off quite easily, one plane at a time, but soon they're coming thick and fast and it begins to get the urgency of, say, *Missile Command*, which requires similar skill.

The game has been written very competently, but there's no variety in what happens, no change of scene. This actually feels like part of a larger game, the dissatisfying part, but there is no more. Moreover, *3D Bomb Attack* raises other issues.

Nowadays, if a micro will let you storm embassies, fight elections, and do combat in the South Atlantic, how long before we see a game where, as a fighter pilot, we must seek and destroy a jumbo jet?

Should we play the same games as governments? **WD**

GAME: 3 DEEP SPACE
MACHINE: BBC MODEL B
PRICE: £7.95
FROM: POSTERN
FORMAT: CASSETTE

Those aliens will do anything for a gimmick. Their latest wheeze is to oblige you to wear 3D glasses (included in the package), so you can admire them in perspective while you zap them.

3 Deep Space is a horizontal, shoot 'em game where the action takes place just above the stationary surface of a world decorated with lines of pyramids.

Like the ones in Egypt, these pyramids just sit around and do nothing. They may have something to do with the aliens, but it's hard to be sure because the game came with no instructions beyond how to use the 3D glasses.

The aliens come from the right of the screen and are diamond shapes. Not only must you move up and down to shoot them as they come across, you must also move your laser gun 'into' and 'out of' the screen, otherwise the line of fire can pass behind, or in front of, them.

There are four blockbuster bombs available as well as the gun, and these will take out every alien on the screen at once. They should be used sparingly, preferably when the diamonds are coming thick and fast, and at all depths.

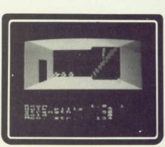
At 10,000 points, the onslaught of diamonds is replaced by a wave of aliens vaguely resembling Soviet spacecraft in appearance – all bulbs and antennae. If any alien makes it to your gun, four ear-splitting cracks like thunder announce the end of the game.

The game is simple in concept, and it's the 3D glasses that make it special. In case you haven't worn them before, there's one blue cellophane lens, and one red. By slightly separating the red and blue components of the picture on the screen, the glasses should simulate a 3D effect.

I've never found the system satisfactory, but the glasses are fun, and also good to wear at parties. In the case of *3 Deep Space*, they make the graphics shimmer beautifully, but frankly, I found it easier to judge the distance of an alien by the separation of its red and blue shapes, and by its size. The farther it is, the smaller it is.

Since the gun is the same size as the aliens, it makes shooting a matter of picking on someone your own size.

The configuration of keyboard keys used makes this game difficult. Once grasped, people will tire of it after a while. However, the departure from the usual 3D graphics claimed by games is admirable. Some people can fool their eyes with these glasses, and they'll enjoy it. **WD**



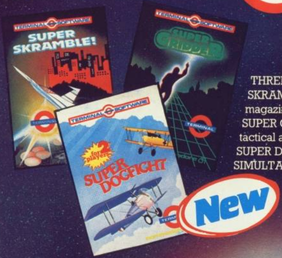
GAME: ESCAPE FROM MOONBASE ALPHA
MACHINE: BBC MODEL B
PRICE: £7.95
FROM: PROGRAM POWER
FORMAT: CASSETTE

Games to a software reviewer can be like bottles of booze to a wino. It's a rare game that offers genuine refreshment. *Escape from Moonbase Alpha* has the exhuberance of vintage champagne.

It's an adventure game, which starts off with the familiar premise that you have been abandoned on a moonbase that has many rooms and floors. Your only means of escape is to find the Doctor, hiding on the seventh,

▶ 51

TERMINAL SOFTWARE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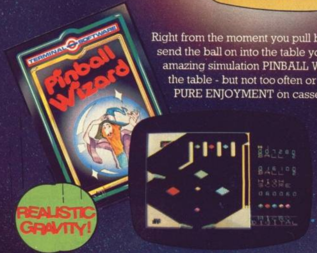
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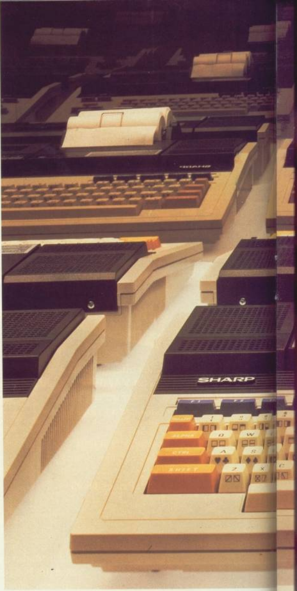

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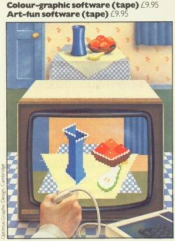

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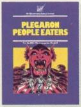

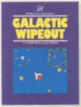

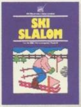

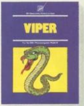

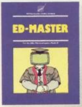

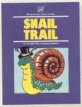

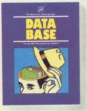

RH Electronics has a whole series of excellent software for the BBC Microcomputer Model B. For games, business and education, they will be highly valued by any BBC Micro owner.

Plegaron People Eaters £8.95
Stop the Plegarons' path of destruction by walling them in. A game of skill (nine levels) and cunning.

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This set of three games for the younger enthusiast includes: Task Force – a strategic battle of sea and air; Demolish – blast your way to freedom avoiding radioactive fall-out and falling masonry as you go; Cosmos – where you have to defend the earth from an invading battle fleet.

Ed-master £12.95
This program uses the quiz format combining the element of fun with educational teaching. 160 questions may be programmed by the teacher, divided into eight subject areas of 20 questions each. Questions and answers can be changed as often as you wish. The computer will tell the pupil whether he or she has the correct answer or not, but cheating is prevented as pupils cannot access the program to find out the correct answers. The scores of up to 40 pupils are stored in the quiz memory and are easily recalled for comparison.

Snail Trail £4.95
Help the snail escape from the maze he's fallen into before he starves to death. There are two skill levels to this cassette.

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and deepest floor. For 10 bags of gold, he'll take you away in his police box.

Finding the Doctor involves wandering through the rooms and down staircases, battling or avoiding monsters, collecting gold and conserving your strength, and so on. If your strength falls below zero, you're a gonner.

Being left alone on Moonbase Alpha doesn't mean you're going to be lonely. The place is a-buzz with things, mainly bad. There's demons and wizards, and creatures that sit on your head and kill you.

There's a robot called Marvin, boring people to death, and Doris the monster, who looks like a TV set on legs, and who wants to turn you into a frog.

One way of dealing with such things is to take a Hulk-pill, and get very strong and green for a while, able to walk through walls.

Hopefully, you'll find money bags there, which, if there's no monster around, you can then chuck down a chute into your savings.

The game is full of interesting happenings and characters. Many of the characters seem to be doing part-time work between TV series, and it's worth playing the game just to meet them. Sound effects are good, the game often requires speed, and 3D is simulated with simple but amusing graphics.

And, of course, the game is a real adventure, requiring mental maps to be made.

Escape from Moonbase Alpha is packaged nicely, but the packaging is deceptive. The program inside has a rare effervescence. It is witty, frustrating, and intelligent – which makes it one of the best I've ever played.

GAME: GALAKZIONS
MACHINE: SPECTRUM 16K
PRICE: £5.95
FROM: MIKRO-GEN
FORMAT: CASSETTE

As you will no doubt realise from the horribly twee way that Mikro-Gen has spelt the title, this is simply the Spectrum version of Galaxians, a second-generation *Space Invaders*, which has been around for quite a while, and which has been implemented on numerous machines.

Galaxians (okay, Mikro-Gen, if you insist – Galakzions) are simply Space Invaders that refuse to stay in their nice neat formation, insisting instead on swooping down at you from awkward angles and at inconvenient times.

Mikro-Gen's Galakzions are hardly fearsome beasts – in comparison to some I have seen, they are positively sedate – and there is nothing really new in this program to add life to what is becoming a somewhat tired and dated concept.

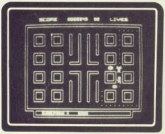
In fact, I seem to recall a ZX81 game (from Artic, perhaps?) in which the attacking Galaxians were quite awesome – they were certainly harder to deal with than Mikro-Gen's aliens, even though Artic used the limited ZX81 graphics. This version has the advantages of colour and sound.

But if you feel that no home is complete without a Galaxian game, then I guess this'll do until something better comes along.

There's a choice of speeds – fast, normal, or slow – and the option of using Mikro-Gen's own joysticks. I tried the Kempston stick without success, then hooked up the AGF programmable joystick, which worked a treat.

In fact, this game is slow enough for keyboard operation – keys 2 and 4 move you left and right, while 0 fires. There is also the facility for one- or two-player operation.

'Competent but uninspired' would seem to be the fairest verdict. **SM**



GAME: ANDROID ATTACK
MACHINE: BBC MODEL B
PRICE: £8.95
FROM: COMPUTER CONCEPTS
FORMAT: CASSETTE

An android attack is far worse than a mugging. In the game of that name, the attack results in you exploding into little bits, like a shattered vase. This is an arcade-style game, in the *Pacman* tradition. Trapped in a maze, you must defend yourself from a variety of androids by shooting them down, or laying mines and blowing them up.

Some androids leave a trail of dots, others the occasional fruit, and eating the latter will restore your energy reserves. If your energy drops to zero, you're a gonner because the androids will soon home in on you.

The game has 19 levels of play, and if you start on level one, it's theoretically possible to work your way all the way up. Initially, there are just four white androids, which are things that bounce up and down on hydraulic legs, as if they were built at the Citroen factory.

These are not much trouble, and explode after just one shot. But purple androids appear from eggs laid in the maze, and they need three shots to go down.

As you go on, red and blue androids appear, which are even worse. On being shot, a blue splits into two reds, and a red into two whites. All this means the maze can get pretty crowded, with a total of 16 white androids at any one time and all of them after you.

The evilest android is a yellow face called Smiley, who floats like the Cheshire Cat, disregarding walls, and who is totally indestructible. Only if *all* the dots are eaten will he give up your scent.

The pace of the game is always fast, and the action hots up rapidly. At level 10, the maze becomes invisible, and with each level there's always something happening.

Android Attack has good, solid, Defender-style sound effects, and it even requires a certain amount of strategic thought. Variations on arcade games can be tedious and unimaginative, but *Android Attack* is better than average.

Apart from the rather awkward choice of keyboard keys to play it with, the game is recommended. **MD**

GAME: HELL'S TEMPLE
MACHINE: ORIC 48K
PRICE: £12
FROM: KENEMA ASSOCIATES
FORMAT: CASSETTE

Hell's Temple is a large and complex adventure that claims to 'set a new trend in adventure programming'. It is not recommended for beginners – indeed, the cassette case tells us that 'parental guidance is recommended for children under 16', which seems a bit strange since the average 14-yar-old is likely to be more experienced than his/her parents in dealing with programs like this.

Hell's Temple is set 'in the time of the dark ages when witchcraft, sorcery, and fear ruled mankind'. The player takes the part of an adventurer, one of a 'strong and gallant breed who fight against the power of evil'. Being stupid as well as strong and gallant, the adventurer decides to go adventuring in Hell.

The programe comes with a 'Hell's Temple Survival Scroll', which provides hints on how to deal with the hazards ahead. A constantly updated status report lets you know how deep into

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SCREEN SCROLL

Hell you have penetrated, and shows your strength, spellpower, and amount of gold held.

If you wish to stop the game for a return at a later date, exits are provided. At each stage of the game a 3D view of the temple catacombs is given – typing L, R, or F will turn you left or right or move you forward.

On the threshold of each room, the player has four choices: to go inside, to leave, to use the HELP function (this tells you your opponent's strengths but uses up one spell), or to use DETECT (this allows you to see beyond the door to check for monsters, illusions, and treasures – it also uses one spell).

If a monster confronts you, you may fight, use a spell, bribe it, or retreat. There are 76 monsters, any of which may kill you. Occasionally the Gods will be so impressed with your bravery that they will reincarnate you (minus any wealth you might have, which the Gods keep as a fee for their services!). The Survival Scroll warns against venturing far from the upper levels until considerable strength has been gained.

Along with the Scroll comes an invitation to join the Hell's Temple Fan Club, which will allow adventurers to correspond and exchange hints and tips.

I am still a long way from completing *Hell's Temple*, but what I've seen I've liked. There are some nice graphics and, all in all, this is one of the better pieces of Oric software to appear so far. **SM**

GAME: DARTS
MACHINE: ATARI
PRICE: £14.95
FROM: THORN/EMI
FORMAT: CASSETTE

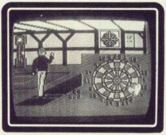
Why anyone who likes darts would want to wait while a cassette program loads up a simulated version of the game is beyond me. You could walk down the road to your local pub in half the time the Atari recorder takes to load the program.

On the other hand, if you are under pub age, and don't have a dart board, this will give a very reasonable feel for what playing darts is like.

Well, almost. Holding a joystick is not quite the same thing as throwing a dart, but the program has some nice touches. The graphics in this game are a delight. The screen displays a marvellous old English pub, with a clean-cut youth poised to throw – no leather jacketed yobbos in this pub, please.

In the bottom right-hand corner of the screen an enlarged version of the dart board appears, with a ghostly hand hovering over the bulls eye, holding a dart. You have to manoevre the hand to aim the dart at the treble 20, or whatver.

The joystick controls the hand's movements, but what makes this game difficult is that the hand behaves like it was owned by someone who's worked his way through 15 pints of bitter. It doesn't stay on line for more than a fraction of a second, so you have to keep steadying it.



There are various skill levels, so that with increasing skill level the hand gets more and more twitchy. Pressing the fire button 'throws' the dart. And just as in the real version, there is a wire hazard, which means that if you hit the wire, your dart will bounce out.

Up to four players can play at one time, and if you are really bored, you can play against the computer – who will, of course, thrash you soundly, since it controls the whole thing anyway.

You can choose to play 301, 501, 901, or 1,001, and you can opt to begin with a double, or to omit the double and go straight for score. One pleasant thing about the computer version of darts is that the machine does all the arithmetic – well, nearly all. It won't tell you what to aim for to 'get out' in a make-able score, say 138. You still have to stir your brain to that extent, at least. **TH**

GAME: PLUNDER
MACHINE: SPECTRUM 48K
PRICE: £6.00
FROM: CASES COMPUTER SIMULATIONS
FORMAT: CASSETTE

Now this one really is fun...The year is 1587, and Spain is financing her Armada by running gold from the Americas back to Europe.

You are, in fact, a licensed pirate. Your job is to patrol the seas and grab as much of the Spanish gold as you can. If you can't actually get your hands on it, you can at least sink the ship carrying it and prevent Spain getting the benefit.

A game may consist of 60, 10, or 140 turns, and there are three levels of difficulty for each number of turns. The game is won once you have stopped a certain amount of gold from reaching Spain (35,000 gold pieces at the easiest level, 145,000 at the hardest).

If successful, you are knighted, and your hated rival Francis Drake becomes your cook. Fail, and you are humiliated while Drake goes on to write his name in the history books.

To aid you in your task, the Spectrum displays a detailed map of the Atlantic, together with copious information on the weather, armament, cash, cargo, men, damage to the ship, number of victories and defeats, number of turns, and so on. When your lookout spots a ship, you are told its type (merchant, galleon, troopship, warship), and you then make the decision to attack or retreat, based on the relative strengths of the enemy and your ship.

If you attack, you are given the option of firing or boarding. In either case, the battle is enacted graphically, with the two ships closing together, and somewhat stylised plumes of water as cannonballs splash into the sea. If the battle looks to be going badly, you can choose discretion and head for the nearest port for repairs or more men.

Hitting another ship results in your craft sinking, whereupon you are igominiously drummed out of the service. There are also uncharted islands, abandoned ships, and strange mists to investigate. These can bring rewards, or disaster.

This is the sort of game for which a computer is ideal, and this particular simulation gave me hours of enjoyment. It's sufficiently difficult to hold one's interest for a long time, and the concept behind it is novel, and well thought out. Great fun. **SM**

GAME: CUTHBERT GOES WALKABOUT
MACHINE: DRAGON 32
PRICE: £8.00
FROM: MICRODEAL
FORMAT: CASSETTE

This is an intriguing little game which combines several different traditional arcade-type ideas into something new.

At the start of the game, the screen is divided into a large rectangle, composed of squares. Cuthbert, an animation figure in what looks like a stetson hat, starts at the middle-bottom square and, to the accompaniment of a tuneful jingle, starts shinning up the vertical lines, and wandering along the horizontals.

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Some others ask you to compare the technical facts. Well, to give them all a surprise we've published some of 32K Colour Genie's most important features.

But for the less technical, here are a few other important questions and answers.

WHY YOU CAN'T BUY A COLOUR GENIE AT THE CORNER SHOP

You see, ALL computers are more complex than they first appear.

So when you start computing, you do need a bit of help. A Saturday shop assistant is NOT the right person to go to.

To ensure that you obtain the answers to any doubts or questions you may have about computers, a list of the many Genie specialists appears below. But if you have any problem whatsoever, get in touch with us at Lowe Computers — we're here to help.

WHY OUR 32K CAN MEAN A LOT MORE THAN EVEN THE MOST RECENT COMPETITORS

It's easy to quote big memory numbers like 32K. In many other popular computers of that size, it is not so easy to use it all.

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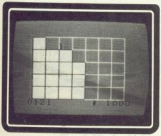
SOFTWARE
INVASION

The scenario is as follows: Cuthbert is responsible for lighting up the lunar landing pad for the arrival of the federal chief's state visit. In this age of high technology, he lights up the pad one square at a time, by walking all the way round it.

To complete a square, it is not necessary for Cuthbert to methodically go up, across, down and round each line in succession. He can wander one side of one square and down the verticle of another quite as he pleases. And he doesn't have to walk. If you want, Cuthbert can be made to jump along all the horizontals in a series of hops by repeatedly pressing the fire button.

There is one drawback to hopping though. Whereas Cuthbert won't walk off the edge of the rectangle, he can be made to leap off the edge. This jump is fatal and sends Cuthbert sliding down the edge of the screen to his death.

If that was all there was to it, *Cuthbert Goes Walkabout* would be a distinctly forgettable game. The interest comes in the shape of a set of Moronians, blob-like creatures who pursue Cuthbert up and down the verticles and horizontals. When they catch up with him, they explode.



Moronians hunt rather blindly in the early start of the game and can be avoided for the most part. If you find yourself cornered, you can always attempt to leap Cuthbert over them. This works – unless the Moronian is about to change direction (from left to right, or right to left), which is not exactly a predictable event.

I had a little difficulty in controlling Cuthbert when it came to the fiddly bits, such as getting him to stop climbing up a vertical and to switch instead of going horizontal. The points of intersection demand precise control.

Every time you manage to complete a square it lights up. The sides of uncompleted squares that Cuthbert has travelled over turn from black to brown, so it is easy to keep a track of what still needs walking over.

Oh yes, one more thing, the Moronians become smarter in their hunting for Cuthbert the longer you take to complete your lighting up of the lunar pad. Late in each screen a 'Chief Moronian' appears. He seems to be able to bend the rules governing Moronian behaviour, and does for Cuthbert rather quickly.

The game has a Hall of Fame which allows you to enter initials after the 10 best scores. **TH**

GAME: GAMESPACK
MACHINE: ORIC 48K
PRICE: £7.00
FROM: SECTOR 7
FORMAT: CASSETTE

This is the sort of tape that appears early in the life of every home computer – a collection of simple games that are not considered commercial enough to be sold on their own. Sector 7's *Gamespack* is a typical example: a 3D maze program, a Bomber game, noughts and crosses, a maths test, a Snake-type game, a blast-the-invading-aliens game, and an extremely simple version of *Pacman*.

There's not a lot to be said about a selection like this – none of the programs are exactly complex. I also found the odd bug that had slipped through – as in *Obstruction*, the Snake-type game, where the program crashed on occasions when the snake's trail hit the border of the screen. The keyboard went completely dead and the program had to be reloaded.

Of the seven games here, I must admit that I found *Laser* quite compulsive. In this, a saucer attacks your ground station, and you have to destroy the missiles it fires at you. It moves closer with each attack, and can be destroyed if you have managed to zap enough of its missiles without using up all your available energy.

Of the other games, *Maths Test* would be good for a young child to practise arithemtic – after a correct answer the player has the opportunity to play a simple Space Invaders game.

I suppose this selection would be suitable for giving to a very young child at the same time as he or she gets their first computer – but most kids are familiar with computers nowadays, and are likely to demand something considerably more complex that shows off the Oric's features to better advantage.

The one thing that puzzles me is just why Sector 7 decided to market this selection for the 48K machine alone. None of the programs are so complex that they couldn't have been fitted into 16K, so why restrict the potential market? Seems a bit dumb to me. **SM**

GAME: HARRIER ATTACK
MACHINE: SPECTRUM 16K
PRICE: £6.95
FROM: DURELL SOFTWARE
FORMAT: CASSETTE

First of all, I must admit to a prejudice against this game. *Harrier Attack* has unpleasant overtones of the Falklands conflict – although, to be fair to Durell Software, there is not direct reference to Argies, Task Forces or, indeed, the Falklands. But then what would you make of a game in which you take off from an aircraft carrier, fly over an island bristling with defensive positions, bomb an enemy base, and then return to the safety of your ship?

Could be coincidence. of course – and maybe it's only my uncharitable mind jumping to unjustified conclusions… Or is it?

Anyway, ethics aside and, let's face it, micro games are hardly noted for their morality, concentrating as they do on wiping out aliens, bombing cities, etc, etc), what do you get for your money?

What you get is an adequate, if not spectacular, 'shoot 'em down' game that makes very few intellectual demands and which – in my case, at least – palls fairly rapidly.

Harrier Attack begins with your Harrier aircraft in position on the flight deck of an aircraft carrier. Pressing the 'cursor up' control takes you into the skies, and from this point on it is simply a matter of avoiding or shooting down the various obstacles in your path.

DURELL software
Harrier Attack!
SPECTRUM
Pure machine code

Fly low and you'll avoid most of the enemy fighters, but will run into a lot of flak from the ground defences. Fly high, and the fighters will attack in force.

You have the choice between trying to blast the opposition to pieces or adopting a lower profile and simply taking evasive action. If you elect to fight, you have to make sure that you keep

▶ 59

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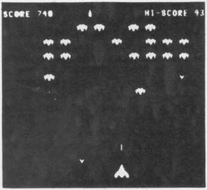

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enough bombs and bullets to deal with the enemy base when you get there.

Points are awarded on a sliding scale, with a mere 10 points for hitting an enemy guided missile, and 750 for shooting down an attacking aircraft. If you get into serious trouble, there is the chance to hit the eject button and bail out – do this just before your plane is destroyed and you'll pick up 1,000 points. Landing safely brings a bonus of 2,000.

There is a choice of skill levels ranging from 1 to 5, and level 1 is a doddle, with the enemy flak making little impression. As the skill level is raised, enemy guns do more damage and you have to fly faster since you are considered to be carrying more ammunition, and fuel has to be burned quickly to reduce weight.

On screen indicators tell you your speed, how much fuel you have left, and the number of bombs and rockets remaining.

And that's all there is to it. I found *Harrier Attack* a disappointment – taking off could have been made considerably harder, and after bombing the inhabitants of the enemy base back to the Stone Age a few times, it all became too predictable.

There are some excellent Spectrum games around, most of which make much better use of sound and graphics – your money would be better spent on them.

Harier Attack is also available for the Oric. **SM**

GAME: NIGHTRIDER
MACHINE: ORIC 48K
PRICE: £6.00
FROM: CIROSOFT
FORMAT: CASSETTE

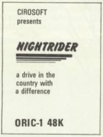
Nightrider is a game for the larger Oric, in which the player has to recover stolen shares from ex-Foundation (the program does not tell you what the Foundation is) members and staff who are now 'trying to legally takeover'. They must be stopped by force – but the player must not kill them.

Giving aid in this mission is an intelligent, computer-controlled car (could this program have anything to do with TV's *Knight Rider*, do you suppose?), which provides all the necessary data, maps. and so on, and which interjects comments to keep the player on his or her toes.

Nightrider failed to load at 'fast' rate – a common failing with Oric games – but provided no problems at the 300 baud rates. After loading, the user is invited to wait for a few seconds while the game is set up before being given a brief explanation of the available data – fuel loss, strength of foe, number of shares to be found, likelihood of survival and the possibility of zero resistance.

There are four different maps which the player may consult at each turn. These give details of the terrain, skill fctor, odds against success, place at which the action occurs, and the number of shares available.

The player, who is assumed to be riding in his souped-up car, the Night 1000, is faced with a series of opponents, most of whom appear to be either sadists or traffic wardens (there's a difference?), and who all have different strengths.



For example, traffic warden Frank N Sikes has a welcoming committee of nine men with guns, while another opponent will be armed with lasers, mortars, or a tank.

After the player has been notified of the opponent's strength, the options available are to fight, run, quit the game, or to get help quickly. This latter involves jumping the car over a river to be refuelled, and this leap has to be carefuly controlled to avoid overhanging cliffs and quicksand.

Selecting the 'fight' option simply involves a very minor calculation – you are told your opponent's strength, and all you have to do is select sufficient force to overcome him. Care must be taken in this, since using too much force will kill, which is not allowed.

And that's all there is to it – you simply keep meeting opponents, collecting their shares if you beat them, while refuelling as necessary. I must admit that I found refuelling quite difficult – in most cases I simply disappeared into the quicksand, and had to begin again. I don't know what happens when you've collected all the shares – I'm afraid I lost interest long before I reached this stage.

Nightrider is hardly a showcase for the Oric's capabilities – its use of graphics and sound is minimal, and it seems more the type of game that a keen user would type in from a magazine listing rather than a commercial piece of software.

I was not impressed. **SM**

GAME: DANGER UXB
MACHINE: BBC MODEL B
PRICE: £7.95
FROM: PROGRAM POWER
FORMAT: CASSETTE

The object of *Danger UXB* is to defuse a ticking time bomb before its clock reaches zero. On the way to where the bomb is located you must consume as many blue tiles and flags as possible, by running vertically over a 15 x 15 grid.

To get yourself in the same column as the bomb, you can slide horizontally across the tiles. This is also a useful move to avoid the skulls placed in your way.

As the tiles are eaten up, it becomes harder and harder to reach the bomb in time. Once six bombs have been defused the grid is replaced, and the game becomes faster. At the higher levels of the game, stamping boots are introduced which impede your progress towards the UXB, and must be avoided at all costs.

Danger UXB makes full use of the BBC's graphics and sound capabilities. The animation is very smooth, and the movement keys extremely responsive.

As for the sound, you are treated to a Scott Joplin rag, as you rush around the board for dear life as well as the usual zaps and explosion.

I found *Danger UXB* a refreshing change from shooting down aliens, attempting to land Concorde, or doing odd things with frogs. It's a mixture of tactics, timing, and reflexes, and it had me glued to the screen for hours on end. A very well written program, which I highly recommend. **IR**

GAME: ORC ATTACK
MACHINE: ATARI
PRICE: £29.95
FROM: THORN/EMI
FORMAT: CARTRIDGE

Orc Attack is a new departure for computer games. You are defending your stone castle from the invading Orcs. These are determined little fellows who bang ladders against your castle walls, and then try to swarm up them and cut your head off (literally – if you don't put up a stout defence, you will find your head bouncing on the ground at the foot of the castle wall, looking suitebly astonished and gory).

The rules for moving your

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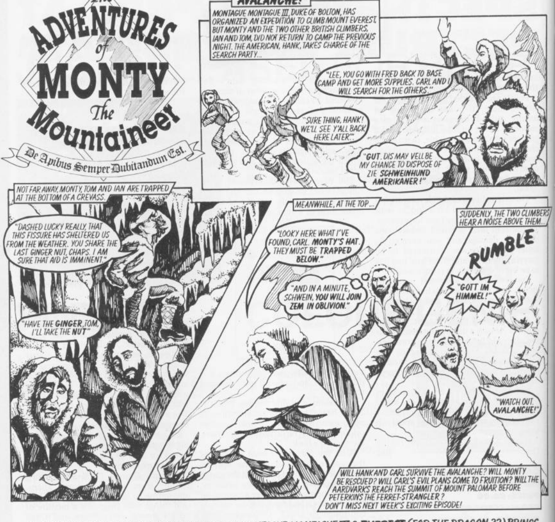
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"AVALANCHE!"
MONTAGUE MONTAGUE III, DUKE OF BOLTON, HAS ORGANIZED AN EXPEDITION TO CLIMB MOUNT EVEREST, BUT MONTY AND THE TWO OTHER BRITISH CLIMBERS, IAN AND TOM, DID NOT RETURN TO CAMP THE PREVIOUS NIGHT. THE AMERICAN, HANK, TAKES CHARGE OF THE SEARCH PARTY...
"LEE, YOU GO WITH FRED BACK TO BASE CAMP AND GET MORE SUPPLIES. CARL AND I WILL SEARCH FOR THE OTHERS."
"SURE THING, HANK! WE'LL SEE Y'ALL BACK HERE LATER."
"GUT. DIS MAY VELL BE MY CHANCE TO DISPOSE OF ZIE SCHWEINHUND AMERIKANER!"
NOT FAR AWAY, MONTY, TOM AND IAN ARE TRAPPED AT THE BOTTOM OF A CREVASS.
"DASHED LUCKY REALLY, THAT THIS FISSURE HAS SHELTERED US FROM THE WEATHER. YOU SHARE THE LAST GINGER NUT, CHAPS. I AM SURE THAT AID IS IMMINENT."
"HAVE THE GINGER, TOM, I'LL TAKE THE NUT"
MEANWHILE, AT THE TOP...
"LOOKY HERE WHAT I'VE FOUND, CARL. MONTY'S HAT. THEY MUST BE TRAPPED BELOW."
"AND IN A MINUTE, SCHWEIN, YOU WILL JOIN ZEM IN OBLIVION."
SUDDENLY, THE TWO CLIMBERS HEAR A NOISE ABOVE THEM...
RUMBLE
"GOTT IM HIMMEL!"
"WATCH OUT. AVALANCHE!"
WILL HANK AND CARL SURVIVE THE AVALANCHE? WILL MONTY BE RESCUED? WILL CARL'S EVIL PLANS COME TO FRUITION? WILL THE AARDVARKS REACH THE SUMMIT OF MOUNT PALOMAR BEFORE PETERKINS THE FERRET-STRANGLER?
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Salamander
SOFTWARE

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defender about the castle ramparts are tricky. The graphics are good, but not good enough, it seems, for the Orcs to actually move from the ladders to the castle battlements. So the designers have deemed that once an Orc reaches the top of the ladder and is not reasonably swiftly massacred by you, it can start your head rolling wherever you may be.

This effectively peoples your safe battlement with invisible Orcs, and makes life very difficult. At the top of the battlements you can grab a sword (which can be swung around using the joystick, to lop any Orc off his ladder).

Alternatively, you can pick up rocks from either side of the battlements, or (a real treat this for the homicidally minded), you can pour a pot of burning oil over the Orcs and wipe out one entire wave of attackers. The graphics here should satisy the most bloodthirsty, as flames engulf all below the battlements. The dead Orcs form a pyramid at the bottom of the screen.

I never survived the massed ranks of ordinary Orcs, but for those whose reflexes are more attuned to this sort of thing, these fellows are only the start. There are Ninja Orcs (don't ask what a Ninja is, don't you go to the movies?), who can scale the walls without ladders.

There are also Stone Warts and gigantic Demon Trolls to be fended off. As if this were not enough, there is a Sorcerer who nips in from time to time, and urges the hordes on against you.

The graphics are good and the game has a certain originality and style about it. I soon got tired of having my head cut off while waving my sword about to no avail, but for the skilled, this game might well have something. **TH**

GAME: MOROCCO GRAND PRIX
MACHINE: DRAGON 32
PRICE: £8.00
FROM: MICRODEAL
FORMAT: CASSETTE

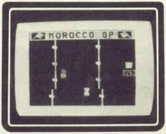
If you have spent a few 10p coins crouched behind the wheel of that marvellous arcade racer, swerving past cars at incredible speeds with the scenery flashing past, you are going to need a good imagination to find this race even a fraction as good.

The graphics do not even begin to be comparable. Instead of that magnificent racetrack with its 3D feel, you are restricted to no more than a block graphics outline of a track, which scrolls vertically down the screen.

But once you have accustomed yourself to the fact that there is no contest between the arcade version and this, you should be able to sit back and enjoy the feature that *Morocco Grand Prix* has to offer.

Your car stays in the same line on the screen, though you can, of course move it about from one side of the track to the other. The track itself has twists, turns, and narrow bits that seem to grow out of the top of the screen. Other cars move rapidly down screen towards you in groups of between two and four in number.

Avoiding collisions takes some nifty joystick work. You have a slight degree of control over your speed (pulling the joystick towards you makes for slow speed – pushing it away from you increases your speed). But even so, cutting between the other cars is tricky, especially if the road happens to narrow just as four of them are boxing you in.



You start each race on the hard shoulder, and as soon as you pull on to the track, a 100 second starts ticking by. You gain points for all the cars you pass and for the distance you travel round the track. Each time you collide, your car goes cartwheeling over and over off the track. This costs you time and distance, and cuts down your scoring chances, though you can crash as many times as you like. There is no bonus or extra time for doing well.

The game has a very inadequate hall of fame, which reflects the top scores in dreadfully small figures, but doesn't allow any initials to be added to identify them. This game looks like a beginning rather than a finished product. A little hard work on the listings should produce a better version. **TH**

GAME: RIVER RESCUE
MACHINE: ATARI
PRICE: £24.95
FROM: THORN/EMI
FORMAT: CARTRIDGE

River Rescue is a not-so-distant relative of the arcade game where you have to fly a helicopter/jet/rocket over rugged mountain terrain, bombing everything in sight (Airstrike, reviewed blow, is a prime example of the species).

The basic skills are very similar, though Thorn EMI has brought off a cunning change which makes the thing worthwhile as a game in its own right. The basic scenario is that, instead of trying to avoid mountain peaks while zapping the nasties, you are piloting a launch down a river to collect explorers, who have somehow got lost in the jungle.

There are jetties at various points along the river on both the north and south banks. Bringing your launch to a stop at a north bank jetty causes an explorer to dash from the jungle and hop on board. The idea is to collect a few of them and drop them off on the south bank jetties.

You can load your boat up with as many as nine explorers if you wish, but since the launch goes at a great clip and the river is full of twists, turns, and things to bump into (including dolphins), it is smarter to unload them as fast as you get them.

The pace of the boat can be slowed marginally, using the joystick, but it tends to shoot off once you signal normal speed. The dolphins have an irritating habit of wagging their tails just as you think you've found a clear line past them. This, and any other crash, does for your boat, your passengers, and you.

In case you think this is all you have to worry about, there is also a helicopter which appears from time to time and mines the water in front of you. The launch is armed and you can blast your way clear – this goes for the dolphins as well, which I thought was a bit off, even if they do move at the wrong time.

If you can keep the throttle full down and avoid crashing into anything, the boat moves into the right hand section of the scrolling display. This cuts down your reaction time, of course, but it gives you higher scores.

All in all, an exciting game. **TH**

GAME: XENON 1
MACHINE: ORIC
PRICE: £8.50
FROM: IJK
FORMAT: CASSETTE

You are a fleet commander in the Xenon Space Academy. Your mission is to journey to the planet Radon, and protect it from the Zorgon battle star. En route you will encounter various weird and wonderful aliens, who will attempt to destroy your space craft.

The first wave is made up of strange green birds, who fly erratically about the screen and drop bombs on you. If you survive this first onslaught, the

► 83

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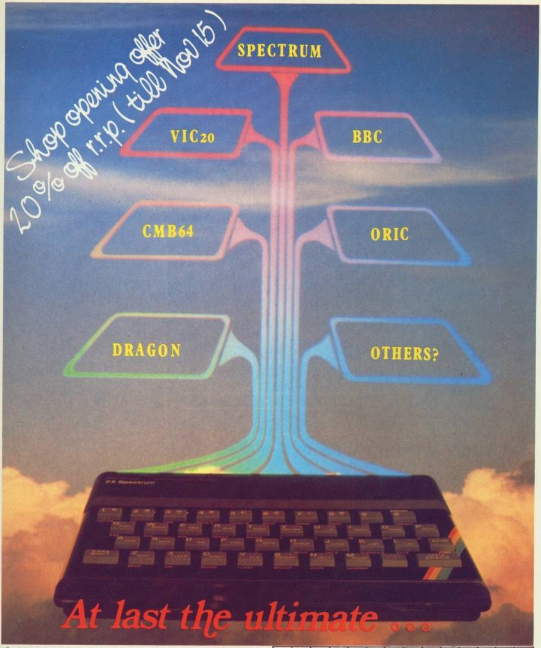
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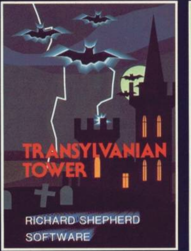

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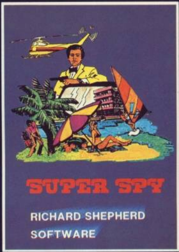

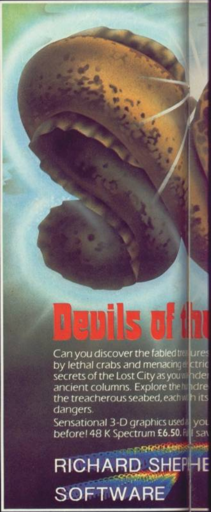

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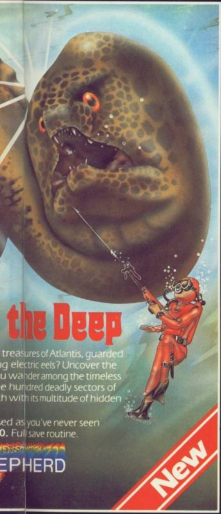

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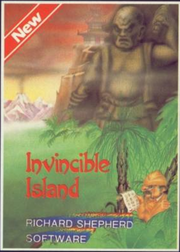

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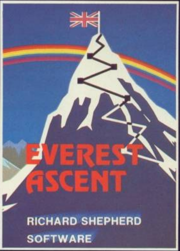

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SULTAN'
MAZE

THE CHALLENGE

If it wasn't for some hairy looking monster chasing you around the Hampton Court Maze, this game would be comparatively easy. But as it is, one of the main challenges is to keep away from this rather strange looking creature.

The other object of *Sultan's Maze* is to locate the jewels that are scattered in between and around the hedges, and then to take yourself, hopefully laden down with jewels, to the nearest exit without being stopped by the crazed monster.

HOW TO WIN

It all sounds rather difficult, which at level 10 it is, but the programmer has provided many aides so that you can complete your mission.

The first is a map detailing where you and the monster are located in the maze, and also where the jewels are to be found.

You lose 'energy' points each time you refer to the map, but once you have worked out what way you are facing and the N,S,E and W, this 'aide de memoire' will prove invaluable.

The oher help you are given is the 'J' key which allows you to jump through an inside hedge, or to avoid the creature that is following you, or both.

The best advice, as in most maze games, is observation. Remember where you came from, where you are meant to be going, and where the jewels and monster are. All of which information came from the map.

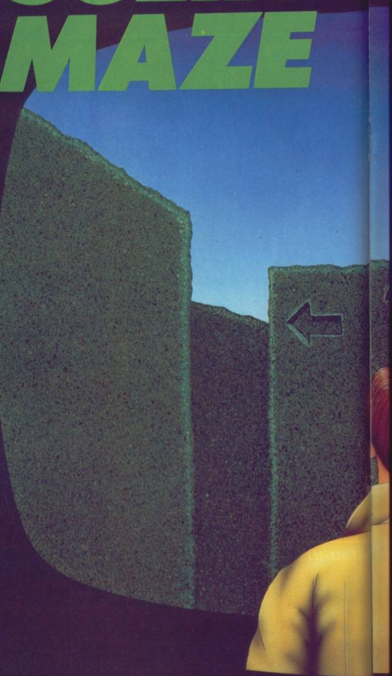
But remember that if you lose too many energy points the jewels will be, 'too heavy' for you to pick up and your only way is to exit and try again.

VIDEO VERDICT

A simple game that allows you to think about the problem and work it out. It's a game that will frustrate you to no end but makes a change from the fast, action-packed *Space Invader* type game.

However, after a time you'll probably rmember many of the maze plans, and consequently get pretty bored with the whole thing. But until then...

Machine: Dragon 32.
Price: £7.95.
From: Gem Software.
Format: Cassette.



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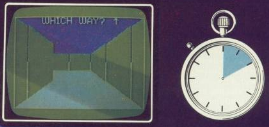
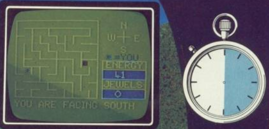
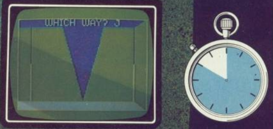


You're in the maze and you can go either ahead and left, or backwards. So, which way?


N
W E
S
* =YOU
ENERGY
41
JEWELS
0
YOU ARE FACING SOUTH

A glance at the overall map and you can tell facing South isn't gonna get you anywhere.



It's time to jump through the hedge to escape the monster – you lose energy points.

CENTIPE

THE CHALLENGE

Equipped with a laser gun, it is your object to destroy the squirming centipede as it makes its way precariously down the mushroom field. This is in itself a daunting task, but it is made no less easy due to the unexpected presence of a rather dubious looking, bouncing spider who appears randomly to make the inevitable challenge.

Thus the task is to destroy the many parts of the centipede before it destroys you, and to avoid or 'laser' the spider, in order to score a bounty of points.

As the game progresses the challenge becomes increasingly more difficult. The centipede comes at you at a far greater speed and the funny looking creatures, reportedly dirty fleas, appear far more often. It's enough to keep anyone on the edge of their seats.

Other incentives to get your name on the high score list include snails crossing the mushroom field, and funny looking creatures emanating from the centipede itself.

HOW TO WIN

Pay attention to both the centipede and especially the spider, who has a habit of appearing from nowhere when you least expect it.

If you don't have a joystick attached to your terminal, you can't move the laser up and down, but only sideways. This proves to be an immense disadvantage since you are inevitably destroyed if the centipede has a good run down the mushroom field, whereas with the joystick you can avoid this by moving your laser gun above the centipede.

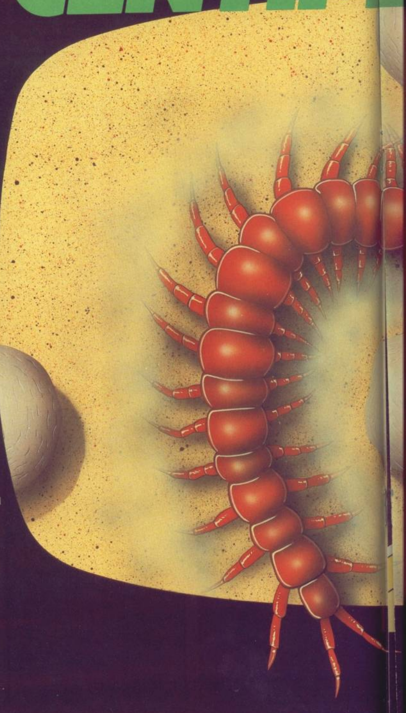
At the lower skill levels, the spider will not prove to be much of a problem. Yet at the highest level the spider will take a lot of overcoming.

VIDEO VERDICT

The graphics and sound effects are pretty good in this version of the arcade game as you get the machine gun sound when zapping the colourful centipede.

It is a very simple game and a bit of practice could make you highly proficient in centipede bashing. The absence of a joystick could shorten your game and lower your score, but would certainly not detract from the overall enjoyment of the game.

Machine: BBC Model B.
Price: £7.95.
From: Superior Software
Format: Cassette.



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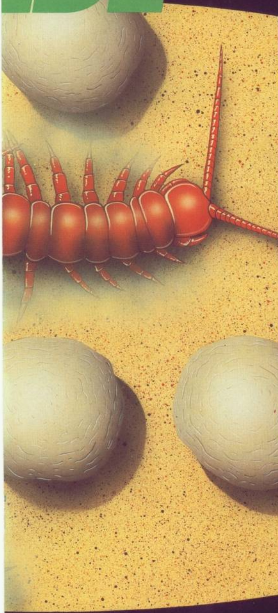
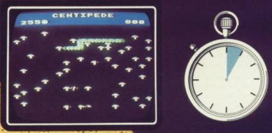
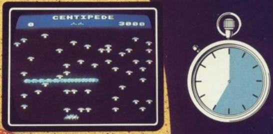



CENTIPEDE
2550
000

At the start the centipede moves quite slowly and does not present much of a problem.


CENTIPEDE
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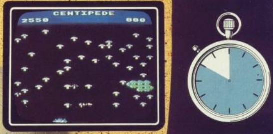
But soon it speeds up, and becomes more and more of a threat the lower it gets.


CENTIPEDE
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You're in trouble if you don't zap it soon – and you have only three chances.

SUPER SCRAM

THE CHALLENGE

The aim in this one-player version of the arcade game is to destroy the enemy command centre by piloting your space ship over rugged terrain, and on the way bombing and firing at enemy helicopters and missiles.

To destroy your ultimate target, you have to whirlwind your way through eight different sectors – each one proving to be more impossible and frustrating than the last.

HOW TO WIN

The totally illogical aspect of *this* game is that you have to hit every fuel tank along your way in order to avoid plummeting into the ground. In the blurb that comes with the game it states that, 'you need to destroy the fuel tanks, to gain vital fuel'. Little did I know it was *that* vital.

There is no easy answer in suggesting how you can win. One thing to be careful of are the enemy helicopters whose missiles seem to come at you with admirable accuracy. You'll be lucky to conquer all eight stages – which include the meteor storm, the skyscraper city, the cave with funny-looking space creatures, and the underwater battle – due to a large extent from running out of that vital fuel.

The graphics are not as good, or as colourful as the arcade version, but the challenge is certainly as big if not better. Although the game is playable on the keyboard, stage four is ruled out unless you have a joystick. (The fact that I only reached stage three with a joystick means *nothing*.)

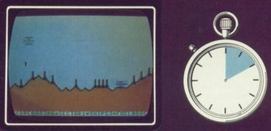
VIDEO VERDICT

The major groan about *Super Scramble* is the amount of attention you have to pay to the fuel tanks – to the extent that nearly everything else can get ignored. The game is certainly a challenge, and to destroy the command centre on skill level three will certainly take a lot of practice.

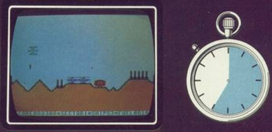
Not bad, all things considered.

Machine: Commodore 64.
Price: £9.95.
From: Terminal Software
Format: Cassette.

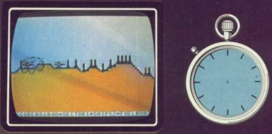
BLE



There's danger ahead, but you're looking good (so far). Watch out for those missiles.



Don't forget the fuel tanks, and notice that those missiles are coming at you more often.



Crash! You ran out of fuel – and this is only the easy stage. The others are much harder.

PHARA TOMB

THE CHALLENGE

This is not a game for the zap and splat crowd, but rather a well-executed adventure in words and pictures. *Pharoh's Tomb* is most of all a brain-teaser, a game you'll need to spend a good deal of time with for it to be worthwhile. There's a stunning Egyptian treasure at stake here, so the time you spend on it will no doubt be worth it. You are an explorer in the land of the Pharoh, and one who's hot for all the gold and jewellery that's offered.

HOW TO WIN

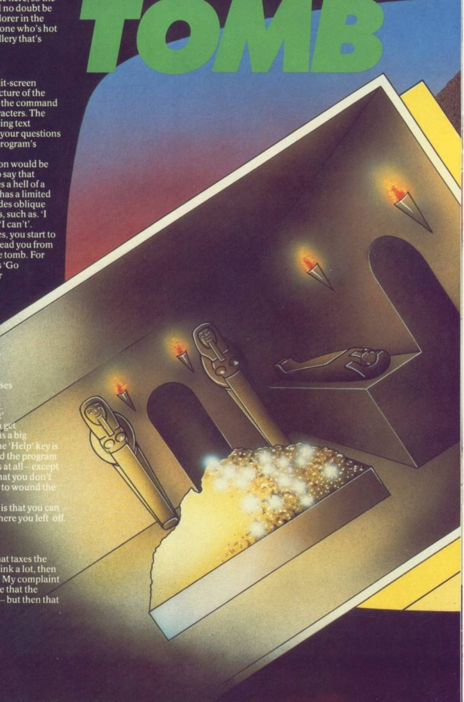
Pharoh's Tomb uses split-screen graphics to give you a picture of the inside of the tomb AND the command line to control your characters. The command line is a scrolling text window which displays your questions or commands, and the program's response to them.

To give you the solution would be cheating, but suffice it to say that victory in this game takes a hell of a long time. The program has a limited vocabulary which includes oblique and unhelpful responses, such as. 'I don't understand,' and, 'I can't'.

As the game progresses, you start to work out the hints that lead you from room to room within the tomb. For example, the commands 'Go West', or 'Go South', or 'Move stone', or 'Pick up Cloak' would move you from the Crystal Room to the Sacrificial Chamber. But you don't really want to know whether that's closer to the treasure or not – do you?

The program's rather short and vague responses make the game, to say the least, rather difficult. And after seeing 'I can't' 150 times or more, it can get rather boring. Patience is a big virtue here since even the 'Help' key is distinctly unhelpful, and the program refuses to give any hints at all – except repeatedly telling you that you don't need any – which tends to wound the old self-confidence.

A feature of the game is that you can leave it and take it up where you left off.

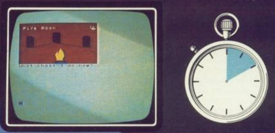


VIDEO VERDICT

If you like something that taxes the mind and makes you think a lot, then this is the game for you. My complaint is in the lack of language that the computer understands – but then that is just my excuse.

Machine: Spectrum 48K.
Price: £4.95.
From: Phipps Associates.
Format: Cassette.

OH'S



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Fire Room
What shall I do now?
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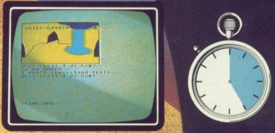
You get a picture of the inside of the tomb *and* a command line to control your characters.



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Water Cavern
What shall I do now?
> GO WATER
I don't understand that!
What shall I do now?
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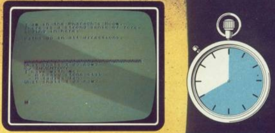
Hmm. 'GO WATER' it doesn't seem to understand. What if you try 'DRINK WATER'? Ah...



Now what? Throw the stone? Wave the fan? More important, which way is the treasure?

FIREFLE

THE CHALLENGE

You are in charge of a firefleet cruiser, and it is your mission to manoeuvre your craft past cannons, tanks, and force fields, and countless other dangers and hazards.

The vertical scrolling enables you, if you're good enough, to pass through 34 different screens of such hazards, which are divided into four equal sectors, with each sector becoming more and more difficult – or should I say impossible.

HOW TO WIN

Firefleet is one of the more challenging games to come on to the market of late. The first sector, although you're under heavy fire, will not prove to be much of a problem, since you have plenty of space in which to manoeuvre, and the enemy cannons are in full view.

In your enthusiasm to get past this first section, be careful not to be too heavy handed on the joystick, since oversteering will be the death of you, and your cruiser.

The second sector is much the same as the first, with the additional problem of enemy tanks blocking your path. It is the last passage that could prove to be your downfall, since space seems to be at a premium. My only advice here is to keep back and fire as quickly as possible at the obstructions – and you'll still need luck on your side.

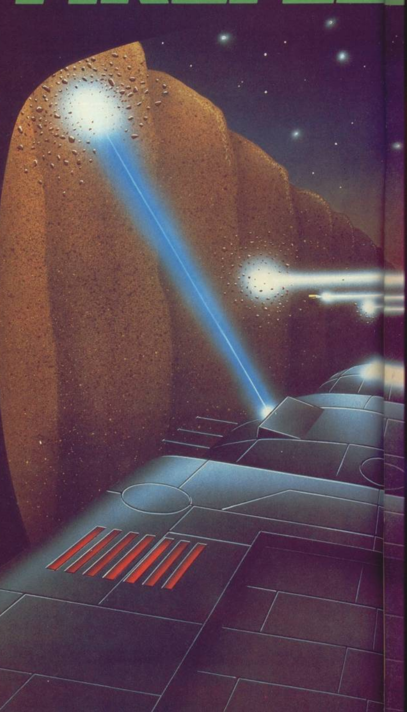
The third and fourth sectors are the most difficult. There are force fields and dead ends, as well as indestructable tanks and cannons to make your mission a new impossibility.

It is at these stages that you'll need a lot of co-ordination and a lot of patience when you run into the dead ends – and furthermore, a lot of luck.

VIDEO VERDICT

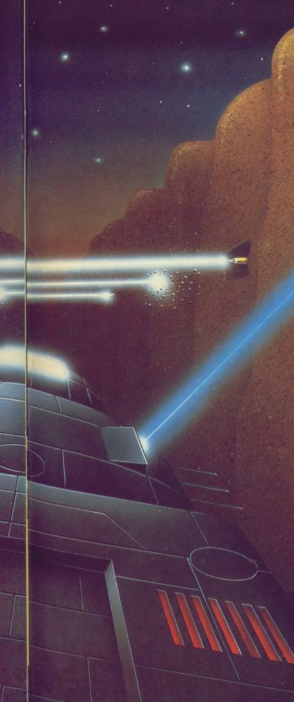
A first rate game that will give you hours of fun. The mission is difficult to accomplish and consequently the game becomes very addictive.

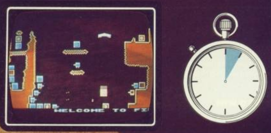
The graphics aren't great and I couldn't find the score chart, but despite these minor criticisms, it's a really challenging, game and will certainly give you a run for your money.



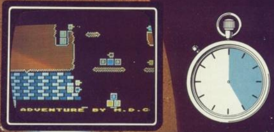
Machine: Atari.
Price: £14.95.
From: English Software Company.
Format: Cassette and disk.

EET

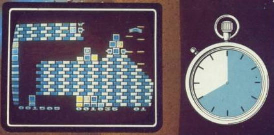



WELCOME TO FI

It's not easy even at the begining. Watch out for the cannons, the enemy tanks, the obstacles… and don't oversteer.


ADVENTURE BY M.D.C

You're coming along but there's still an awful long way to go and even more perils to overcome. But be patient.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It gets tougher, believe it or not. The maze is tough but you have the added hazards of the cannons.

EVOLUT

THE CHALLENGE

As the name suggests, *Evolution* is a game in which you, the player, evolve into bigger and better things. You start off as an amoeba and, if you overcome the various challenges, you then evolve into a frog, and eventually into an otter.

HOW TO WIN

As an amoeba you begin at the bottom of a pool which has various levels, and the object is to eat five spores, four of which can be eaten at any level. The last one *must* be eaten at the top level.

Simple enough you might say, but you have a limited amount of time, and there are two species of predator that you must avoid. If you don't beat the clock, then you die through 'lack of nourishment'.

Once you've evolved into a frog, the object is to catch 10 flies with your tongue while avoiding a rather hungry bird, who seems to think that you would make a rather tasty meal.

Be warned that the frog tends to move rather slowly, and therefore you would be advised to stick to the left of the screen and wait for the swooping bird to get near you – and then, like the clever frog you are, sidestep.

The challenge of 10 flies is a difficult one, but do not despair since, after a period of time, you will find that the bird does not pose so much of a problem.

If you are skilful enough to evolve into an otter, the challenge then is to avoid a hungry giant crab *and* to catch 10 fish at the same time.

The fish appear randomnly, and so it can happen that you are left avoiding the crab for up to half a minute. The 10 fish is a tough task in itself but the fast-moving crab will pose a problem for even the nimble fingered.

VIDEO VERDICT

A challenging game that could keep even the most proficient video games player enthralled for hours. As the program indicates, 'This game is for big frogs, not puny tadpoles'.

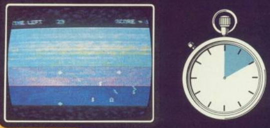
There is another program called *Evolution,* where you evolve from an ape into a man, and then into controller of the world.

Both versions of the game are from a forthcoming Pan/PCN book, *Sixty Programs for the Oric-1* by Robert Erskine, Humphrey Walwyn, Paul Stanley, and Michael Bews.

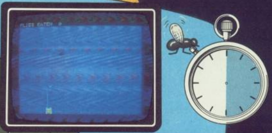
The book will sell for £4.95, and the listings for this game and many others will be included in it. You only need type them in and they'll RUN.

Machine: Oric-1.
From: *Sixty Programs for the Oric-1,* published by Pan/PCN.
Format: Published program listing.

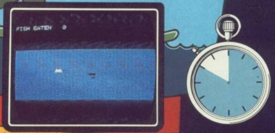
TION


TIME LEFT 23
SCORE = 1

You are just a lowly amoeba. Gobble those spores, dodging the predatory life forms, and get to be a frog.


FLIES EATEN 0

Frogs can eat flies with their long tongues but snap up the flies before the swooping bird snaps up you.


FISH EATEN 0

Now you're an otter. The fish are at your mercy – and you are at the mercy of the giant crab!

PANIC

"It must be a nightmare" he screamed as he ran around the maze of floors, desperately climbing ladders to different levels in a vain attempt to evade the monsters.
He had only his neutron hammer to dig holes for the vile creatures to fall into, but even then he had to repeatedly hit them before they dropped to their deaths. As if that wasn't bad enough, the oxygen supply was running out!
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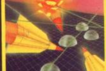

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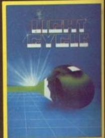

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ORIC 1

second wave consists of fiendish, hovering hedgehogs which clone on being hit, and (surprise, surprise) drop bombs on you.

If you are fortunate enough to survive the hedgehogs with one of your three lives still intact, you must journey through deep space, which in Xenon-1's case seems to be populated by flying carrots, bent on your destruction.

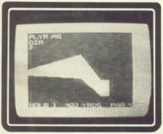
The penultimate scenario is probably the most difficult and exciting. Your task is to destroy waves of 'paratrons' before they reach the ground. If they land on you, they explode – but if they reach ground level, they burrow into the earth, and attempt to stick bayonets into the soles of your feet.

Once you have fulfilled your quota of pararons, it only remains to destroy the very impressive Zorgon Battle Star.

Xenon-1 is an exciting arcde style game, with fast and colourful graphics. Nine levels of difficulty are available, the lowest of which kept me frustrated for hours.

The least spectacular thing about the game was the sound, which was made up of fairly standard 'explode' and 'shoot' noises.

This, however, is a minor quibble, and one which in no way would stop me recommending *Xenon-1* as a worthy addition to your Oric games library. **IR**



GAME: GOLF
MACHINE: DRAGON 32
PRICE: £8.00
FROM: MICRODEAL
FORMAT: CASSETTE

As the blurb on the cassette cover says, 'If you like golf, this will be just your cup of tee' (ho, ho). Some people hate computer golf, I rather like it. As far as golf games go, this is one of the better ones.

All it really lacks is a way of linking the strength of each stroke to some test of skill. The best golf games tend to have a 'strength' measure. This is usually a column which rises and falls rapidly at the side of the screen. You have to decide at what point in the column's rise and fall you want the shot to be taken. This device gives you a sporting chance at 'hitting' the sort of shot you think the situation demands.

Microdeal's version of *Golf*, as I said, doesn't have this. Instead, all you can do is select the club or iron number that you want to take. It then allocates a 'strength' to the shot.

The graphic display of the golf course is on a hole-by-hole basis, as is the custom with such games. And there are the usual water hazards and rough off the fairway. I don't remember trees posing anything of an obstacle, so the course must be a Scottish one. The rough certainly has a lot in common with Scottish rough: you have a very slim chance of hitting a good ball out of it.

The computer usually decides that you have topped the ball or otherwise mis-hit it, and it can take a couple of shots to get back to the fairway.

Getting off the fairway in the first place would be less likely if the program didn't have a built in 'slice and hook' factor, which arbitrarily judges your drive (or fairway shot) to be off-line, from time to time.

Aiming the ball is relatively simple, and is done on the clock golf principle (that is, 3.0 is mid-screen, right, 6.0 is bottom-middle, and so on).

Once you are on the green, the scene shifts to a close up of the pin and displays the ball's position. You then have to input both the direction of the putt, and the strength of shot. This is more under your control, andone-putting becomes easier once you've played a few holes. **TH**

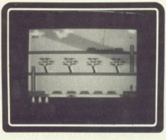
GAME: JUNGLE TROUBLE
MACHINE: SPECTRUM 16K
PRICE: £6.95
FROM: DURELL SOFTWARE
FORMAT: CASSETTE

In the jungle, the mighty jungle, trouble has always lurked amidst the trees. There are only four trees in Durell Software's jungle, so that its more of a Light Savannah Trouble that's offered. Trouble it is, nevertheless.

The trees appear at the second level of the game, which has three levels in all, and which constitute an assault course which must be covered as soon as possible to reach home.

First, your man collects an axe and has to jump along a line of stepping stones across a river. If he falls in, a crocodile appears pretty snappily.

From there, a ladder leads to the second level, and this is where the axe comes in handy. Your man has to chop down the trees in turn, a task hindered by the axe becoming blunt and a monkey coming to steal it.



If the axe gets completely blunt, you have to go back to the beginning of level one, and collect a new one. If in the course of chopping down all the trees, one hasn't fallen on him, your man climbs another ladder, and thence must swing across a pit of fire, and make an Olympic leap over a chasm which suddenly yawns open.

Jungle Trouble gives you three lives and four speeds to play at, and all movements of your figure are controlled by the cursor control keys, which have beenwell chosen.

The game is written in machine code, and it shows. It's an attractive game which offers a variety of challenges and a fair amount of initial frustration.

The graphics especially are interesting. In other games figures move about like wooden dummies on wheels, but in *Jungle Trouble,* your matchstick man runs, leaps, jumps, and falls as if in a professional animation. You can even study his leg movements.

Similarly, the monkeys are truly mischievous, they scratch their heads and tap you on the shoulder before they rob you.

In fact, attention to detail is good everywhere. The state of the axe is illustrated on the bottom of the screen, and you can watch it becoming blunter – until it looks like a rotten, gnarled tooth.

Jungle Trouble is amusing. It clearly demonstrates that being a Tarzan-like lumberjack is at least as exciting as being a starship commander. **WD**

GAME: TERROR-DAKTIL
MACHINE: SPECTRUM
PRICE: £6.95
FROM: MELBOURNE
FORMAT: CASSETTE

Pterodactyls are huge winged dinosaurs which have not put in an appearance since the close of the Cretaceous period, 65 million years ago. They used

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to eat fish. Now at last, they're out of retirement in *Terror-Daktil*, and boy, are they hungry.

Before the terror commences, you are in an aircraft flying over a distant land. Control of the plane is lost as you pass huge black volcanoes. The volcanoes approach like shambling blancmanges until, to the accompaniment of sinister music, you crash, and all goes dark.

When the sun rises, the plane is lying broken like a squashed moth, by a winding river. From a vantage point on high, you notice that red blobs are building up over the horizon, into a space-invaderlike configuration. They can be shot at with a cannon which can be moved left-right, and the range of the cannonball can be altered by swinging the cannon between 45° and 73° to the horizontal.

The blobs break off to reveal themselves as Terror-Daktils, illustrated in detail, and flying at you with speed and an open jaw. Shooting them down in formation earns 20 or 30 points, and during attack, 100 points.

If you fail to shoot or avoid a Terror-Daktil, one life is lost, and you must wait till the next day when they appear afresh, after dawn. You have three lives in all, and if you can eliminate three rrays of Terror-Daktils, you will be rescued on the sixth day.

The game describes itself as 4D – the fourth dimension being time. Since any game not involving time would be a still frame on the screen, it's an idle claim. However, Melbourne House's use of the three spatial dimensions has resulted in very sophisticated graphics.

When the Terror-Daktils fly at you, they increase in size and flap convincingly. Likewise the cannon-balls recede and follow convincing trajectories.

There are some strange things about this game. First, two people called Alan and Fred have got scores already built into the high score table. Second, I found that the computer itself often launches cannon-balls, without me being anywhere near the keyboard, and it went on to get a higher score than me.

A good score is over 10,000, but initially scoring is almost a matter of luck. Get as many shots in roughly the right place, and hitting something is a surprise.

Skill with this game comes slowly, which is good, but once acquired, it offers no great challenge except perserverance.

Terror-Daktil is an unusual variation of the vertical shoot-up theme, and it will take longer than average to tire of. **WD**

GAME: PASS GO
MACHINE: BBC MODEL B
PRICE: £8.50
FROM: KAYDE SOFTWARE
FORMAT: CASSETTE

On the back of a box only slightly larger than a hardback novel, the blurb announces *Pass Go* as 'similar to a well-known board game, where property is bought and sold'.

The board in question, along with banknotes and green houses, is illustrated on the front cover, and unless you've been brought up by wolves in a remote forest, you'll know *exactly* what they're referring to.

Despite all this, and the game's title, you never do pass Go or collect £200. One to nine players move around a circuitous route where the familiar streets are replaced by a series of shops and hotels, as well as jail, chance, tax stops, and so on.

The bank initially owns all the property, and charges nominal sums if you land on them. Arrive at the pet shop, for example, and you're obliged to spend £40, whether or not you want an animal.

If you're lucky, the bank will offer to buy the property, but this is not automatic. If you do, you will collect substantial monies from others landing there.

In addition to property dealing, players can play the market for gold, land, or shares, the prices of which fluctuate from turn to turn. If you land at the market, why not buy land if the price is low? This, and the fact that a salary of inderminate amount arrives randomly, means that your assets are constantly beyond your control.

Other things are different as well. Instead of going to jail for three turns or paying a fine, you may find yourself committed for five turns, and let out on good behaviour after two. If you are in debt, the bank will lend, but if the debt escalates, the bank will strip your assets systematically, without any chance of deals with the other players. Also, cheating is right out.

The object is to gain as much property, and thus as much payment, as possible, and to speculate on the commodities market, until everyone else is bust. Your position and an inventory of your finances are shown each turn. But best of all, is actually taking the turn itself.

This is where *Pass Go* excells. In what looks like a red taxi with your name on the side, you actually drive along the street and see the various sites roll past. It's a strange pop-art town the action takes place in, where, for example, a ski shop is a pyramid with a flag on it, and Chance is a huge revolver which says 'Click, Bang!'.

Your drive is accompanied by an infectious, fruity tune. This is fine if you feel like celebrating success, but it's positively sarcastic if you're doing at all badly.

The trouble with the original board game is that if you have a few assets early on, the system is true to life, and you gain more and more. If you have initial bad luck, you're discriminated against, and then it just gets worse.

In *Pass Go*, this is accentuated, because your choices are narrowed. You can find the all-powerful bank taking all the decisions for you.

The two games are different, but the same obsessional competitive qualities dominate. This is good, and the graphics and music of *Pass Go* will give you a good ride for your money. **WD**

GAME: SPLAT
MACHINE: SPECTRUM 48K
PRICE: £5.50
FROM: INCENTIVE SOFTWARE
FORMAT: CASSETTE

Splat is the sound tomatoes or small animals make when they hit a wall, and it's fairly similar to what the games packaging does to your eye. The cover has a background of silver, reflecting light in garish, spectral tones, and it demands your attention.

The game inside is worthy of this attention – it's a maze game with a difference. You control Zippy, a character that can be moved left, right, up, or down through a maze where the occasional clump of grass lies waiting to be eaten.

Thus far, it sounds like *Hungry Horace*, and indeed, the sound effects when the grass is eaten are virtually identical. Unlike Horace, Zippy has a maze which has many times larger than the screen.

The screen drifts randomly around the maze, and if its boundaries catch up with Zippy, he's splattered. This can happen very easily – when, for example, he's caught between a maze wall and an approaching screen wall, or if he lingers too long on a grass outcrop.

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SCREEN SCROLL

There are seven levels of play, and a graduation to the next level is achieved by surviving in the last. The percentage of time elapsed is shown and when it's complete, the Spectrum will surprise you by saying 'Yippee', an achievment in itself considering the limited system.

The second level offers plums as well as grass, and the new hazard of water, in which Zippy drowns. On level 3 there's spikes to avoid, and with each level the maze moves faster.

Zippy himself is not much of a character, being merely a cross with feet. He scuttles around quickly, hence the name, and it's easy to move him.

If you don't have a Kempston or AGF joystick, you can define your own keyboard keys. This is an idea so brilliant, other software houses should be forced to adopt it.

Incentive Software are offering a prize for the best score before mid-January, but you'll need no incentive to play this game again and again. It's one of those that keep you up well beyond bedtime.

If Horace hooked you, *Zippy* will amaze you with his moving maze. *Splat* could well become another classic. **WD**

GAME: 3D PAINTER
MACHINE: SPECTRUM 16K
PRICE: £5.95
FROM: CDS MICRO SYSTEMS
FORMAT: CASSETTE

Getting a reliable decorator is difficult enough. Imagine how much worse it would be if he had to work with a berserk android on the loose.

In *3D Painter*, this is exactly the problem. You are the painter, and the job is painting a maze. The maze is not 3D, but it's a nice, symmetrical shape floating in black space. As you move left, right, up, and down, you paint your path in a pretty colour.

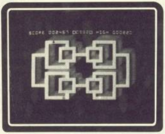
The object is to paint the whole maze, and the danger is this android who moves randomnly and jerkily around. If he bumps into you, you're dead. If you avoid contact, there's another three mazes to paint before you return to the first one.

There's a time bonus for quick completion of the maze, and when that's down to zero, you're out of a job.

With quick reactions, it's possible to give the android the slip – he's not too smart, and can brush right by you without picking up your scent. It's as if he's got a heavy cold and can't smell paint.

You'll find the game easy to grasp, but there are problems – not all of them intentional. The second maze is cyan until you paint it green, and it's easy to miss a bit of the maze because of the lack of contrast. And it's possible to get trapped in dead ends in the fourth maze, which spells the word 'painter'.

It's a shame there's no animation in the characters – they move around as flexibly as a couple of frozen fish fingers, but that shouldn't spoil enjoyment of the game. My main regret was that there weren't any more mazes to explore. *3D Painter* is an uncomplicated game, and sometimes the simple pleasures of life are the best. **WD**



GAME: THE BLACK PLANET
MACHINE: SPECTRUM 48K
PRICE: £5.95
FROM: PHIPPS ASSOCIATES
FORMAT: CASSETTE

The story goes like this. As Starmagon of the Empire Fleet, the player's task is to rid the space lanes of a group of pirates who are threatening the trading vessels. The pirates, who are based on the Black Planet, understandably feel contemptuous about attempts to deal with them – their planet has no sun, and is thus invisible (I'm not sure how well that ties in with currently established scientific thinking).

There *is* a way to detect their homeworld – all you have to do is to find the seven parts of the Key, which was broken up long ago, and hidden on seven different planets.

As with Quicksilva's *Time Gate,* the instructions for this game are so complex that they have to loaded as a separate program before the game proper is attempted – a printer is a great help here to save constant reloading of the instruction portion.

The instructions tell you about the special peculiarities of each planet, and the steps you will need to take to locate the key segment on each. Procedures for segment retrieval take the form of a mildly intellectual exercise – on one planet, for example, you have to outguess your opponent who is moving towards you on a sort of honeycomb grid.

You start the game with 30 crew members, and it's one of these – not you – that gets wiped out each time you make a mistake, which certainly mirrors real-life military behaviour.

At various stages your ship will be attacked in deep space by the pirates and you are equipped with weapons to deal with this eventuality – alternatively, of course, you can simply run away.

You have to make sure that your shield strength is sufficient to deal with the attackers, and you have navigational aids to enable you to land on the various planets.

This is the sort of game that's fascinating to play once or twice, but once you have managed to work out suitable methods of dealing with the obstacles on each planet, the enjoyment rapidly fades. I found this to be the case with *Time Gate,* as well – it soon became extremely tedious.

This *genre* of games seems to equate quality with length – as long as the program takes an age to complete, it doesn't really matter if the constituent parts aren't up to much. This is a view to which I have never subscribed, but I may well be in a minority here – I know people who have been playing *Time Gate* for months and months.

If you fall into this category then *The Black Planet* is for you. **SM**

GAME: INVADERS
MACHINE: ORIC
PRICE: £7.50
FROM: IJK SOFTWARE
FORMAT: CASSETTE

Well, I guess there's nothing like an old favourite... I'd put money on the fact that there is hardly a micro anywhere in the world that does not support a version of this tried and trusted arcade warhorse, and IJK's offering means that *Invaders* is now available for both sizes of Oric.

I won't waste your time, or insult your intelligence by describing Space Invaders – I'm sure that every single reader of this magazine is all too familiar with the basic concept. Suffice to say that the IJK version contains all the features you'd expect, with the addition of a customising option that enables the player to set the game up to his own standard of play.

The basic game is pretty much your standard invaders – somewhat slow and rather too easy – but you can vary the speed of the overall game from 9, which is very slow, to 1, which is near enough impossible, and you can vary the

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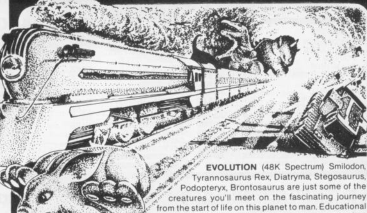

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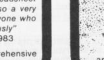

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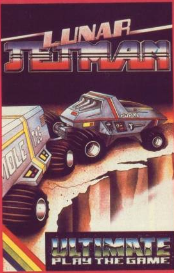

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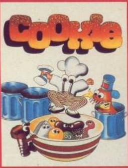

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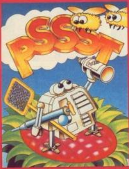

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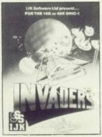
SCREEN SCROLL

ORIC · ATARI

speed of the invaders, bombs, and missiles. You can also vary the volume from 0, which is no sound at all, to 9, which is extremely LOUD.

The only thing you can't change is the speed of the saucer that moves across the top of the screen – this ambles along at a very gentle pace, and indeed, is almost impossible to miss.

You can also stipulate whether you want your targets to be invisible or visible. Setting everything to the fastest possible speed and choosing invisible invaders makes for an intersting, if not particularly playable, game!



All in all, I found this implementation surprisingly enjoyable. It makes good use of the Oric's colour and sound, and the customisation facilities enable the user to make the game harder to play as he or she gains proficiency.

I must admit to a feeling of surprise that Invaders is still with us – it seems to have been around for decades and one would think that micro games players would want something new.

But its wide availability attests to its popularity – and, certainly, if you own an Oric, and you're an Invaders fan, then you'll enjoy playing this. **SM**

GAME: DINKY KONG
MACHINE: ORIC 48K
PRICE: £6.95
FROM: SEVERN SOFTWARE
FORMAT: CASSETTE

Dinky Kong provides an object lesson in presentation – even the fast version loaded first time, which certainly makes a change, and clear onscreen prompts guide you through loading both parts of the program and tell you which keys to use for movement.

Unfortunately the game itself proved unplayable.

Dinky Kong is Donkey Kong for the 48K Oric. The graphics are well designed and the sound is good. There are nine levels of difficulty, and writer Adrian Sheppard seems to have got everything right, bar one factor – and unfortunately this factor is vital.

Movement is controlled via the cursor keys and space bar – and, on my Oric at least, it proved impossible to get the space bar to work properly unless it was pressed down with both hands.

This meant relinquishing control of the movement keys and my reactions were just not fast enough to hit the space bar correctly, and then regain control, before being wiped out.

Dinky – or Donkey – *Kong* - has been around for a quite a while now. In this game, the player attempts to rescue a girl who is held captive by an angry gorilla at the top of a series of platforms.

To reach the distressed damsel, it is necessary to climb the ladders that connect the platforms, all the while avoiding the barrels and, in later stages of the game, fireballs that are hurled by the overgrown chimp.

In addition, there are extra points to be gained by touching the umbrellas that are scattered about, and by moving over the hearts that also appear randomly. These hearts not only score extra points, but also create gaps in the platforms through which barrels and fireballs will fall.

Once the top platform is reached, the player can move on to the next level by pressing the up-cursor key twice in succession while positoned next to either of the two small platform legs.

ARCADE ACTION
DINKY KONG
FOR ORIC 48K

Points are scored at the rate of 10 for each move, plus 500 for each heart crossed, and 800 per umbrella. The player starts with three lives, and one is lost each time a barrel of fireball hits, or if the player falls off the edge of a platform.

A bonus life is allocated at 20,000 points.

I suspect that the problems with the space bar are a peculiarity of my particular Oric – which is a pity because *Dinky Kong* looks like a lot of fun, and I would have liked to have reviewed in it more depth.

I think that Severn Software and Adrian Sheppard have made a mistake in their choice of movement keys – it would have been more sensible to have had left and right movement controlled by one hand, and up/down handled (sorry!) by the other, instead of using the Oric arrow keys, which for some unknown reason group left/down and right/up together.

All I can suggest is that you try this game out in your local shop before buying and leave it alone if you find that jumping the obstacles is impossible. **SM**

GAME: AIRSTRIKE
MACHINE: ATARI
PRICE: £14.95
FROM: THE ENGLISH SOFTWARE COMPANY
FORMAT: CASSETTE OR DISK

This is a carbon copy of the arcade game where you fly over a mountainous landscape, bombing fuel depots and ammunition stores (an act which miraculously increases your stock of both). There are, of course, the statutory guided missiles and flying saucers.

As if this were not enough, there are what appear to be clouds in the sky which you have to fly around. Any attempt to fly through these clouds explodes your aircraft.

The occasion for all this mayhem and navigational skill is pretty standard: your planet is at war with the Planet Cyclon and you, ego-maniac that you are, have volunteered for the most hazardous mission of the war, namely a solo attack on the fortress of Gemini, 40 kilometers south of the planet's capital state of Hennon.

The distance has little significance, at least for players with my sort of reflexes, as you are bound to be hit by a rocket, or fly into a mountain avoiding same.

The graphics generated in this game are excellent. I had to take the manual's word for the existence of 'sliding airlocks blocking the way', once you have got past a certain number of missiles. But according to the close print on the cassette folder which serves as the manual, there are such things. You have to blow them open in order to proceed, and they may, it seems, be surrounded by enemy fighters.

If you fly unscathed all through the first scrolling screenful, you go to the next level, signalled by a different colour, and are handicapped by being able to take on board less fuel and less ammunition. This means, of course, that you have to be even more suicidal in your bombing.

If you enjoyed the arcade game you will have to look at a great many games programs to find a better home computer version than this one. **TH**

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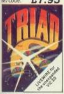
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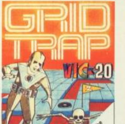
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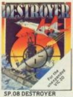
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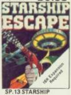
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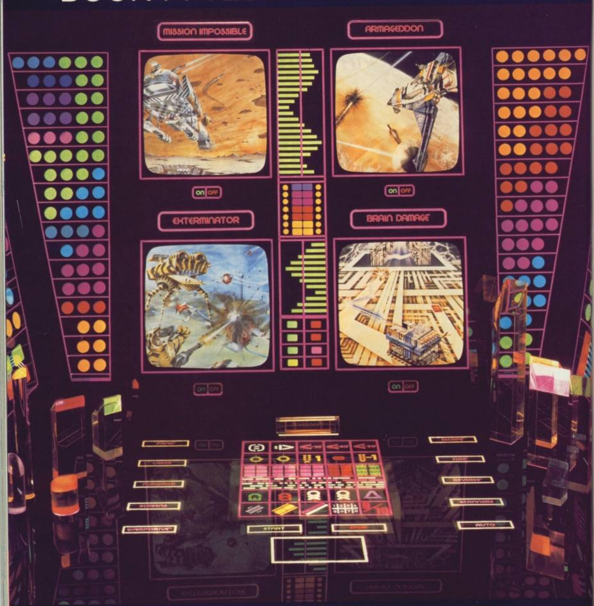

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SCREEN SCROLL

COMMODORE 64 · VIC 20
VIC 20 · COMMODORE 64

GAME: SUPER DOGFIGHT
MACHINE: COMMODORE 64 + JOYSTICKS
PRICE: £9.95
FROM: TERMINAL SOFTWARE
FORMAT: CASSETTE

Day breaks over the verdant French countryside and all is silence, save for the rumble of distant artillery fire and the discreet hum of a Commodore cassette recorder loading another piece of 64 software.

You are the famous World War I fighter pilot waiting for the program to load, giving all the while your opponent the evil eye. Terminal Software have decided to move their game arena back 70 years to the scene of the fierce dogfights in the air. For once your opponent is not the flying ace Baron von Z80, but whoever you choose to humiliate with your innate game playing skills.

But be warned: this is one of the few games where tactics are as important as your reflexes and your hyper-active thumb.

The action takes place in the centre of the screen with white clouds fringing the edges, and two planes bank to and fro, jockeying for position, and the kill. Unlike most popular games, the fire button does not allow for mindless fast fire, and requires careful aim before each shot.

The excellent sound effects add to the general feel for the game, and I would recommend it as a very compulsive and rare two-player game. **EF**

GAME: GRIDRUNNER
MACHINE: VIC 20 + JOYSTICKS
PRICE: £5.00
FROM: LLAMASOFT
FORMAT: CASSETTE

One hundred and fifty years hence a job with the electricity board will involve not only reading meters, but an ability to seek out and destroy alien droids.

But the compilers of *GridRunner* can't wait that long. In it, you are in command of a spaceship operating in a power grid which is infested by alien droids, and your aim is to ensure they do not enjoy their stay. You are armed with a plasma cannon to help get this message across.

The basic concept of this fast moving game is similar to the popular arcade game *Centipede*, with the base ship having two degrees of freedom to attack and avoid the descending droids. The droids appear in chains which scurry left to right descending as they do.

In order to 'zap the grid', you must destroy all the droids which will earn you an extra ship. Life is, however, never that simple, and there are three distinct dangers for our futuristic LEB man.

LLAMASOFT !!
VIC20
Gridrunner

The first is being rammed by a droid which will result in the loss of your ship, and you will have to use your manoeuvrability to its full to avoid this.

The second danger comes from those friends of the aliens, the X/Y Zappers, who move along the edges of the grid, zapping away on a fixed and fortunately predictable cycle.

The last threat comes from a pod, a pod being what is left when you blast a droid segment. These little beasties stay where the droid was hit and grow old, and doubtless bitter, for a certain age. Then they send a bolt of energy vertically down the grid with the sole aim of returning the favour of their recent blasting.

All three of these dangers can be avoided once they are understood, and a good rule of thumb is to keep on the move within these areas you see as safe.

This is a very fast moving game which demands fast reactions and cool head. The graphics are excellent, and there is a good, 'chunky' blast from the ship's cannon. All in all, a most enjoyable game, but not for those with heart problems. **EF**

GAME: FALCON PATROL
MACHINE: COMMODORE 64
PRICE: £6.95
FROM: VIRGIN
FORMAT: CASSETTE

If your idea of sandy, palm tree-ed lands involves a pool, sunbathing, and a pint of draught pinacolada, this is not the game for you. You must be sober and have all your wits about you to stand any chance of lasting more than 30 seconds in this fast moving aerial combat game.

The moment the software has finished loading, you will be struck by the very high quality of the 3D effect graphics and the imaginative use of background sound effects.

As the pilot of an interceptor fighter, you must defend your city from straffing fighter bombers, which fly past at a tremendous rate with a very impressive roar. To give you some chance of scrambling in time, you have a radar plot in the bottom of the screen, which shows the targets as bright dancing dots (similar to the arcade game *Defender*).

With limited fuel and ammunition, you must use your skill to clear the skies of hostile craft before landing (a tricky manoeuvre) to refuel and re-arm. Should you hang around for any longer than is necessary, you get a practical demonstration of the big bang theory, as your craft is reduced to its component parts by a passing fighter.

For the really excellent use of graphics, I would award this game full marks, and it is by far the best Virgin has produced yet. **EF**

GAME: SOOPER FRUIT
MACHINE: COMMODORE 64
PRICE: £5
FROM: COMMODORE SOFTWARE
FORMAT: CASSETTE

Oranges and lemons say the bells of St Clements. Oranges, pears, cherries, and bars say Commodore Business Machines.

Yes folks, it had to happen, the 64 has got its own one-armed bandit package, complete with nudge, hold, and the bell, bars, and orange family.

There is, I am sure, something very significant about one game machine imitating another, but I leave you to work out what exactly it is.

Having never been a bandit addict, I invited a couple of lager swilling experts who found it much to their liking, noting that it would be possible to rest a pint on top of the monitor.

Personally, I find the concept of gambling without money rather fruitless, but the interest shown by the masses, suggests that once you have got this bug, nothing short of a stiff dose of penicillin will cure you.

The graphics are perfectly adequate, but even I missed the satisfying clunk of the wheels, not to mention the rewarding spitting noise the pub machines produce when forced to cough up. **EF**

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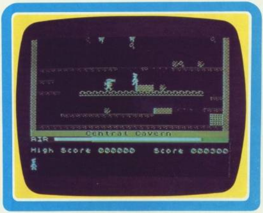
PERSONAL COMPUTER GAMES ☆ SCREEN STAR

MANIC MINER

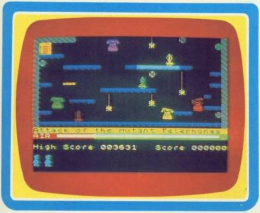
IN EACH ISSUE OF *PC GAMES* WE WILL BE PICKING A STAR OF THE SMALL SCREEN. WHY NOT DROP US A LINE TELLING US ABOUT *YOUR* FAVOURITE GAME?

Within a few weeks of release, *Manic Miner* was the best-selling computer game in the country, and deservedly so. Everything about the presentation of this strange underground tale spells quality – the opening scene depicts an idyllic summer's day, while the Spectrum BEEP's out a bit of Tchaikovsky, and a piano keyboard is shown, with the keys moving in time to the music.

The *Manic Miner* of the title is a chap called Willy, who, for reasons best known to himself, goes prospecting around Surbiton. Here, he stumbles on an ancient mineshaft, in which is evidence of an ancient civilisation.

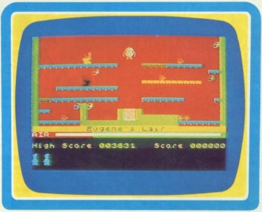


This civilisation used automata to mine the raw materials for its industry, and after a war which wiped out all the combatants, these machines have continued working miles underground, accumulating riches beyond belief.



Willy realises he's struck it rich – all he has to do is get the goodies to the surface. But that's not so easy, not with poisonous pansies, spiders, slime, and manic mining robots to contend with. All the while avoiding these nasties, Willy has to collect the keys that are needed to reach the next level.

The graphics are a lot of fun, and Bug-Byte has given a choice of keys for movement, but it would have been nice to have a joystick option. The best thing about the game is its off-the-wall humour and references to other games – Willy finds himself battling penguins and mutant telephones (better than camels, eh Jeff?), a Kong Beast makes an appearance, and there are attacks from ferocious toilets in Eugene's Lair (Eugene Evans left Bug-Byte for Liverpool rivals, Imagine).



Manic Miner is a fine example of the talent and imagination that goes into producing computer games these days. The Spectrum is particularly well served in this respect – something about Clive's (Sir Clive – *Ed*) little wonder seems to attract the best programmers (maybe it's something to do with the potential financial reward!). We've come a long way from *Pong* and *Space Invaders*, and *Manic Miner* is an indication of just how far. Superb. *SM*

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SO YOU WANT A GAME OF CHESS

THERE'S PLENTY OF CHOICE, SAYS TONY HARRINGTON

Kieren Phelps

Along with all the mutations of space invaders and adventure-type games now being produced for home computers, there are an increasing number of good quality cassette and cartridge based chess programs.

These programs represent a very cheap way of turning a home computer into a reasonable chess playing partner. They cannot provide quite the same feel for the enthusiast as a dedicated chess computer. The dedicated chess machine has the advantage of offering a real chessboard and good solid pieces, instead of graphics. But the cassette or cartridge based program has the overwhelming advantage of price on its side.

The quality of play and the number of features offered vary widely from program to program. And since the programs tend to be specific to particular computers, you might find that you are stuck with a package, at this point in time at least, that is somewhat poorer than one running on a different make of machine.

Spectrum owners are by far the best served as far as choice is concerned. There are already at least four different versions of chess programs on offer from different suppliers. Artic Computing has had programs available for the ZX81 and the Spectrum for a while now.

Artic's program is not particularly strong. At last year's 3rd European Computer Chess Tournament, at the PCW Show, it was the only personal computer program to enter, and it came second to last, out of a field of 12.

But as Richard Turner of Artic points out, Spectrum Chess was somewhat ground under at the tournament by the size of some of the processors it was competing against. The program suits the weaker player, and has a very pleasant graphics display.

The latest version, *Spectrum Chess II* has three options from which the user has to select one as soon as the program is loaded. These three are 'PLAY, ANALYSE, OR LOAD'.

To take the third option first, this provides the chance to load a previously saved position. Typing in 'A' for the second option allows you to set up a position which the machine will then analyse, and 'P' sets up the board for the start of a game.

There is a wide choice of playing level (which sets the 'strength' at which the program will play – within the overall limitations of the program's design). Basically, the longer any chess program has at its disposal to search for moves, the better it can be expected to do. *Spectrum Chess II* can have its move speed set at anything from one second to 16 hours. The time is keyed in as seconds, and the time limit for a game must be at least a three digit number (that is 100 seconds).

Whatever level you choose, you can cut down the computer's playing time by pressing 'P' again. This forces it to play the best move it has found so far. This, or a variant on it, is standard to very near all computer chess

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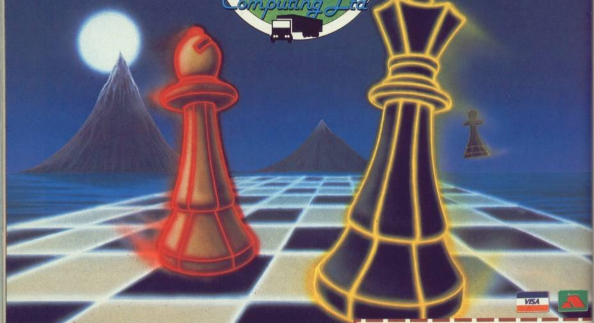

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programs, and it caters nicely for the impatient player, who wants the computer to get on with it!

As with all the home computer chess programs I have seen, the notation used to record moves is algebraic. Each square on the board is represented by a letter and a number (A to H along the bottom of the board, and 1 to 8 up and down the side, running from White's Queen's Rook to Black's Queen's Rook – White's King, for example, is at E1 at the start of the game).

The program, of course, has a graphics representation of the pieces, and these are moved from square to square by entering the co-ordinates of the square a piece has to move to. A King's pawn opening, for example, is entered as 'E2 E4'.

Invalid moves provoke a message telling you that the move is invalid. This has also become a standard feature of chess programs, and is of great help to beginners, since it prevents them from confusing Knights' moves with Rook's moves, and so on.

Spectrum Chess II will also recommend moves when it is the player's turn to move, if 'M' is typed in. The game can be stopped and stored on to cassette at any point by typing in 'T' (provided the cassette recorder is properly connected, of course). The program allows castling on either wing, and recognises *en passant* pawn captures.

One of the attractive features of the Artic chess modules is that they are able to use the ZX81 and the Spectrum's facility to print whatever is on the TV screen directly on the printer. In this way, users can at any time take a diagramatic representation off the screen. As any chessplayer will know, games often turn up positions, such as the start of a good attacking combination, that have an interest in their own right. This is done by pressing 'Z'.

One weakness is that the original versions of the program did not – and I believe the present version still does not – recognise the '50-move/draw' rule. This is the rule that, if no pawn has been made, and no piece or pawn captured, in 50 moves, the game is an automatic draw).

At any time, pressing 'O' will print all the moves made so far either on to the screen, or on to the printer, if the latter is present. Up to 20 moves a time are shown on the screen.

There is a fairly complicated set of instructions for setting up positions on the board in analysis mode. Space precludes a full description of the precise way of going about this, but it is not as satisfactory as that in some other programs, such as the Cyrus chess program examined below. This latter has the ideal way of setting up a graphics-type chess board via the cursor arrow keys, as we will see.

Further details on *Spectrum Chess II* from: Artic Computing, tel: 0482 75284.

Psion also offers a chess program for the Spectrum called, not surprisingly, *Chess*. This program has nine levels of play, and is written in machine code. It runs automatically as soon as it is loaded, and the first thing the player sees is a graphically displayed chess board.

Once again, you have the option of either selecting 'P' for play, or choosing to set up the board differently. The program is roughly at the same strength level as that of Artic, though if anything, the instructions which come with the cassette are even briefer.

This is a false economy, as a reasonable manual can be a great help to a beginner. But for the price of the cassette, (to be inserted later) there is little point in grumbling.

In many ways this program is very similar to Artic's. Pieces are moved by entering the co-ordinates of the to and from squares (without the space required by the Artic program) and all legal moves are allowed. 'T' will once again save unfinished games to cassette, and 'Z' will copy the screen to a printer.

One major difference was that in analysis mode, instead of a series of complicated inputs for each piece that you want to place on the board, you can use the cursor (5,6,7, and 8) to move a flashing, cursor around the screen. Pressing the letters K, Q, N, R, B, and P place the King, Queen, Knight, Rook, and so on, on the square on which the cursor is at that time. 'C' clears the board completely, and 'X' takes you back to the main program.

There are at least two other chess programs for the Spectrum, one by Intelligent Software, and one by Compusense. These will be reviewed along with other chess programs in the next edition of *Personal Computer Games*.

Audiogenic has a chess program which runs on the Vic 20, and on the Commodore 64. Called *Grandmaster*, this program comes in a neat box, and despite being cassette based, has a small, stiff-covered manual. The manual starts out by making the immodest – and as far as I am aware, untested – claim to be the 'world's strongest chess program for home computers'.

Compared to the brief, back-of-a-cassette-wrapping 'manual' provided by the two packages we have looked at so far, this has eight written pages of instruction. It aims at both the beginner and the experienced player. The beginner will find the rules of the game in Chapter 5.

The Vic 20 version needs an 8K expansion cartridge. Moving the pieces is done by entering square co-ordinates as for the other programs, and as with those, you can choose whether you want to play black or white. Illegal moves are blocked by the program.

One curious feature is that the cursor arrow keys are used to move the whole board about the screen, if it happens to be loaded out of position.

The program can play against itself (command 'F2') and you can set up to 8 foreground and 16 background colours, as well as 8 border colours.

There may be chess players who are more bound up with the appearance of the set than they are with the game. This type of player will appreciate this feature; others may find it somewhat irrelevant. (There is also a command which will turn your board display into a 'colour spectacle'...)

Moves can be 'taken back', and you can ask the program what move it would play in your place. There are nine playing levels, ranging from five seconds to two hours, plus a 'postal chess' level where the machine will compute for as long as it deems necessary.

Atari have a chess program, by Larry Atkin (*Chess*, £34.95) which comes on disk. On the face of it, this looks like a very good home computer chess program. I didn't have time to play a lengthy game against it, but was highly tempted. In a 'lightning' game, it performed very well.

Atari's *Chess* has all the features that one expects of a good chess program. It will recognise all legal moves, including castling and *en passant* pawn captures. And, unlike some commercial dedicated chess computers, this program will declare a draw either on the 50-move rule, or when neither side has sufficient material to force a win.

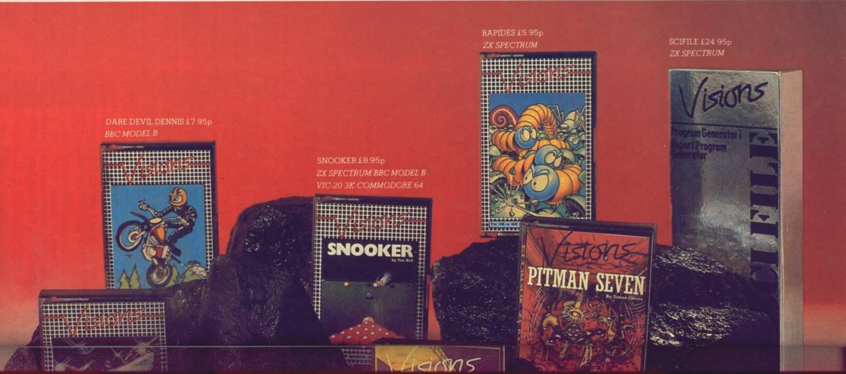
One thing the program will not do, and I regard this as a real blemish, is to allow pawns that reach the eighth rank to be promoted to a piece other than a Queen. It always forces you to take a Queen. The manual suggests that if you want to 'look at a complex end-game where you have knight promotion, for example, you should use the "change" facility to put a knight on the square.'

This is not the point though, since occasions do arise when, if the computer is not itself considering promotions other than Queen promotions, the game result will be false. These are pretty rare occasions though, so unless you are an utter purist, I wouldn't let this little flaw bother you too much.

There are 17 levels of play, and the program has a large number of features, including an opening library of over 7,000 moves, and the ability to replay a whole game.

The manual not only has the rules of chess, it also has an interesting section on the game's history, and some good advice on strategy and tactics. ■

Visions SOFTWARE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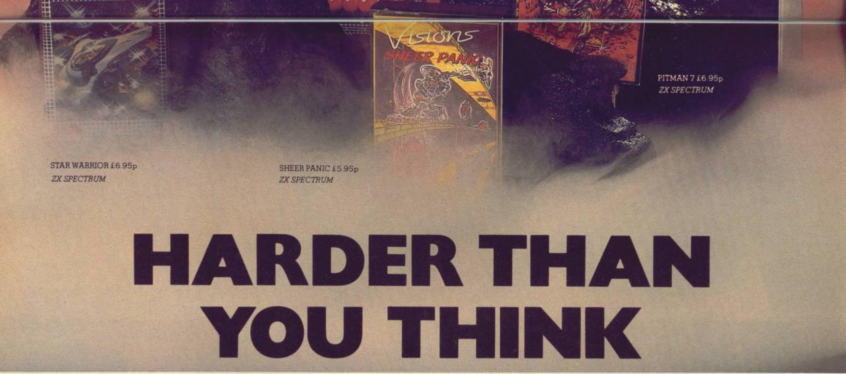

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● *With the ability to reproduce the entire graphic and character set of Aquarius™ at 80 characters a second, the printer's 40 column output allows transcription of the complete monitor image.*

● *Using standard audio cassettes, the data recorder provides storage for programs and information, and allows the use of cassette based software. Incorporating a digital tape counter and transmission indicator, it operates sequential searching.*

● *A large number of games, designed to take advantage of Aquarius™'s sophisticated colour and sound capabilities, are available on cartridges that plug into the console either direct, or through the mini-expander. Cassette based games can be used via the data-recorder.*

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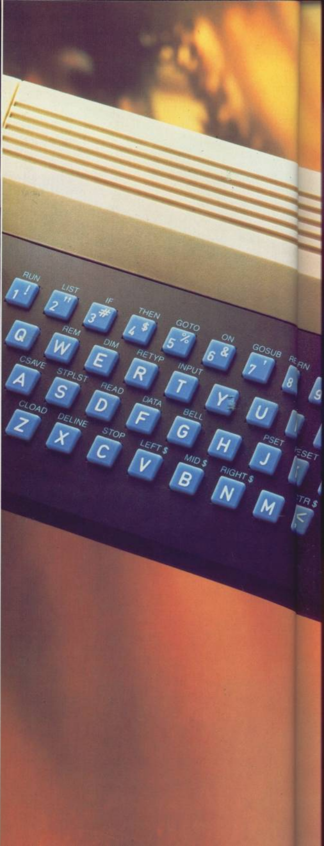

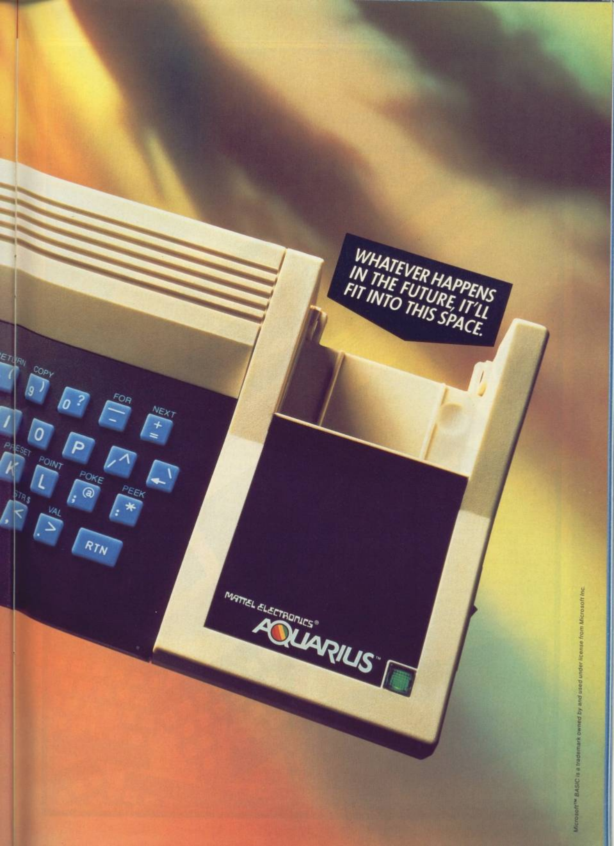
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AQUARIUS

AT UNDER £80, HAS MATTEL CUT TOO MANY CORNERS WITH ITS NEW AQUARIUS?

In the run up to Christmas, the competition to sell home and games micros becomes more and more intense. As manufacturer vies with manufacturer, the hunt is on for the micro which is all things to all users.

Into a field with many established models now comes Mattell with its Aquarius, which according to Mattel, is ideal not only for education, but is also in the forefront when it comes to games.

This is a bold claim, and it remains to be proved whether or not it has succeeded.

Features

I should point out from the start that this is a machine that you can add bits to, such as printers, cassette recorders, a type of joystick called 'hand controllers' and other assorted goodies. These will add to the final cost, and, as I found out, will take up half your living room.

The basic version of the machine has only 4K of RAM, that is, memory available to the user. But for an additional £29.95 you can buy the first of several add-ons, namely 16K of memory, giving 20K in total.

If you buy one of these machines, then I would recommend that you buy the extra memory, since the difference in price is small, and the extra memory is vital.

With the machine, you get a power supply cable, TV cable to plug the Aquarius into the back of the TV, and an instruction manual.

The micro itself is very neatly designed, and robust. The 49-key keyboard is, in my opinion, the only major drawback, since the keys are of the rubber, push-button type, and do not have a very positive 'feel' to them. When you press a key you can feel a small click, but there is not a clear enough movement to make it possible to type at decent speed.

An interesting feature of the keyboard is that you can place overlays on it. An overlay is a piece of flexible plastic with holes for the keys, which you can lay over the keyboard. Commands are printed on the overlay and by pressing the control key and one of the other keys, it is possible to have single-keyword entry just like the Sinclairs.

On the back of the machine there are a number of sockets. Here you can plug in various peripherals, such as a cassette recorder and a printer.

The most important part on the Aquarius is the cartridge/memory port. When you unpack the basic Aquarius, this port is covered with a slide-in moulding made of black plastic, and which fits flush to the top of the computer.

To fit cartridge software, or more memory, you have to slide this black moulding off.

One important add-on is the mini-expander which attaches to the back of the Aquarius via this cartridge/memory port. For £49.95 you get a unit which incorporates two slots on the top to put in more memory and/or program cartridges, two hand controllers (for games), and two more sound channels, to make the total of three.

However, it is not necessary to buy the mini-expander to make use of games cartridges, since the cartridges themselves can slot direct into the back of the cartridge/memory port.

Finally, the last two peripherals are the data-cassette recorder and the printer. The data-cassette recorder allows you to store and retrieve data and programs which are held on tape.

You don't have to buy and use Mattel's data cassette recorder, and after using it, I recommend against it. This is because I had a lot of trouble LOADing programs from tape.

Attempting to adjust the tone and volume levels won't help either, since there are no controls to adjust.

The printer from Mattel will allow you to print both graphics and tèxt. It is also possible to 'dump' the contents of the screen to the printer by using the COPY command.

The printer is of the thermal type, which means that you need to use a special type of paper.

In use

For the purpose of this review, I received the 4K Aquarius with 16K add-on RAM a data-cassette recorder, a printer and a mini-expander, with hand controllers and various pieces of software.

Once everything was set up and the Aquarius turned on, I tried some programming. The Aquarius is programmed in Basic, and the dialect on the machine is Microsoft.

The Aquarius is a machine which can produce sound and colour, and to be frank, Microsoft Basic was not designed to handle them. The result is a mess. To get the machine to produce any of its 15 colours, you have to go through a process of POKEing memory locations. There are no 'real' colour commands.

The graphics are not much better either. With games machines, it is important to have good graphics, and with the Aquarius this is not the case. Instead, you have block graphics, and this means that resolution is sacrificed.

You do however, have quite a large number of graphic shapes to choose from in the character set, and these will have to do since you cannot define your own shapes.

The entering of Basic programs is not so easy. Trying to enter a program of any real length proved to be frustrating due to the 'soft key' keyboard. Certainly, it is no better than the Spectrum keyboard.

If when entering a line you make a mistake, you should correct it before you hit the RETURN key, since there are no facilities to edit or change a line after it has been ENTERED.

The only course of action if you have made a mistake is to retype the line. In my opinion, this is not good enough, and Aquarius should have included editing facilities.

Software

At present there is not much software available for the Aquarius, although more is promised. The software I did get was in cartridge form – which is good if you want fast access to the game or whatever, but bad insofar as cartridge software costs more than cassettes.

Of the games I received for the Aquarius, *Snafu* and *Tron Deadly Discs* were the best, considering the graphic limitations of the machine. But after using them for a while, they lost their interest, and none had any real 'addictive' quality.

One British company is producing cassette-based software for the Aquarius, is Apocalypse Software (*see page 14*).

Verdict

When buying a micro, cost can be paramount, so the cheaper the better. But is this the most important criterion?

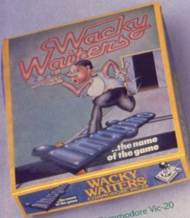
Mattel have cut so many corners that, in the opinion of this reviewer, the result is counter productive. You can have all the add-ons you can think of, but you will be left with a machine that is limited in Basic and graphics.

DJ

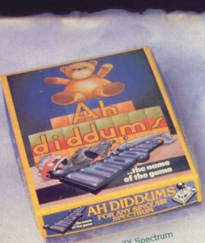
Name: Mattel Aquarius.
Manufacturer: Mattel.
Available: Now.

Left: the Aquarius has a clutch of memory expanders, hand controllers, and other useful bits, including keyboard overlays (inset right), but the keyboard (inset left) does not have a positive feel which makes for slow speed.

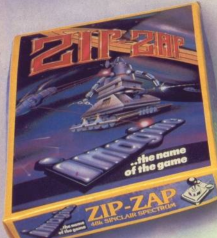
THE MISTS OF TI
GIVEN UP THE


Wacky Waiters
..the name of the game
WACKY WAITERS
COMMODORE VIC-20

for any Commodore Vic-20


Ah diddums
..the name of the game
AH DIDDUMS
FOR ANY SINCLAIR SPECTRUM

for any ZX Spectrum


ZIP-ZAP
..the name of the game
ZIP-ZAP
48k SINCLAIR SPECTRUM

for any 48k ZX Spectrum

ZZOOM
NOMEN LUDI
..the name of the game
ZZOOM
48k SINCLAIR SPECTRUM

for any 48k ZX Spectrum

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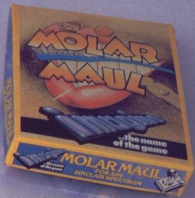
Jumping Jack
..the name of the game
JUMPING JACK
FOR ANY SINCLAIR SPECTRUM

for any ZX Spectrum

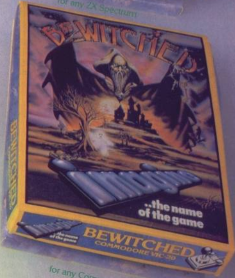


MOLAR MAUL
..the name of the game
MOLAR MAUL
FOR ANY SINCLAIR SPECTRUM

for any ZX Spectrum

ARCADIA
..the name of the game
ARCADIA
FOR ANY SINCLAIR SPECTRUM

Commodore 64, Commodore Vic-20 or ZX Spectrum



BEWITCHED
..the name of the game
BEWITCHED
COMMODORE VIC 20

for any Commodore Vic-20

..the name of the game

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ELECTRON

THE ELECTRON IS A GOOD CHRISTMAS CHOICE FOR BOTH GAMES AND EDUCATIONAL USES

The major problem with any parent who wishes to buy their kids a micro is in choosing the right one. The difficulty lies in choosing a micro that will not only provide entertainment through the playing of games and so on, but also finding some educational value.

The BBC micro was designed with these two aims clearly in mind. The Model B is quite expensive and costs nearly £400. Moreover, it has many facilities that are not generally used – such as the large number of expansion ports – and for a school kids' machine, it has more facilities than are needed.

The escape from this dilemna is the Electron.

Presentation

The Electron comes in a sturdy package which holds the Electron, the power supply, TV lead, two manuals, and a cassette of example programs. No cassette leads are provided, but they are easy to obtain from most good hi-fi dealers.

The Electron itself is a very neatly designed unit. It looks good, and while it is small in size, its keyboard is full size. In fact, the keyboard is of very high quality, with proper moving keys, unlike the rubber, push button keys found on some machines.

To the left of the keyboard is a recessed yellow light which is there to indicate if you are in upper or lower case. On the top of the keys is printed the standard QWERTY alphabet, while on the front of the keys are printed Basic keywords and some commands.

Thus, it is possible to enter Basic commands by pressing the CONTROL key and the keyword key at the same time. This 'single keyword entry' was first used on Sinclair's ZX80 and ZX81, but on the Electron it is optional. Typing out the word in full gives the same result, so you have the best of both worlds.

On the side of the Electron are the sockets to connect the Electron to a cassette recorder, and a TV set or monitor. The power supply socket is to the right of the machine, well away from the other sockets.

One thing that is missing from the design of the machine is an ON/OFF switch. If you wish to turn the machine on or off, then you have to either remove the 13-amp plug from the wall socket, or remove the power plug from the Electron. This, I am sure, will cause wear as time goes by.

Games enthusiasts will no doubt be disappointed to find that the Electron has no ports in which to attach joysticks. But what you do have is an edge connector at the back of the machine, and here, so Acorn promise, will be attached several 'adds-ons' when they become available.

Features

Although the Electron is similar to the BBC Micro, it must be regarded as very much a cut-down version of the BBC, so don't expect all the features of its 'big-brother'. However, for £199, you do get a high-resolution colour computer with sound as well as a sophisticated Basic.

As far as graphics and text is concerned, the Electron can operate in any one of up to seven modes, numbered 0 to 6. Depending on what mode you are in, you can have more or fewer colours and higher or lower resolution. The table shows the different combinations:

It's important to note that the different modes take up different amounts of memory, and since there is only 32K of RAM that is available to the user, you have to be sure there is enough room for your program, as well as the information record of the screen.

Sound is also provided for, and this is accessed through the Basic commands, SOUND and ENVELOPE. There is only one channel for sound so you can only play one note at a time. Thankfully, you can alter the volume and this will no doubt save some parents' tempers.

Altogether, the graphics are quite sophisticated, and there is something for everyone – except sprites. To be brief, sprites allow you to move objects about the screen with the minimum of fuss, and it's a pity that BBC Basic never incorporated them.

Game players will love the Basic that is on the Electron. It's fast and structured (to an extent). It's perfectly feasible to write games in Basic without having to translate into machine code.

There is one problem with the Electron implementation of Basic, in that the machine runs at different speeds in different modes. Experienced software authors will program around this, but it might prove to be a bit of a problem for those who wish to convert programs from the BBC micro to the Electron.

Software

The Electron will run some existing BBC micro software, but there can be a few problems. The BBC micro uses an extra mode, mode 7, which saves a lot of memory, but the Electron doesn't support this. This means that if you try to run some BBC micro software that uses mode 7, then all you will get is garbage on the screen.

The software houses who produce software for the BBC micro will no doubt be busy converting their package to run on the Electron. This is all to the good for Electron buyers, since there already is an abundance of software for the Beeb.

In the meantime, Acornsoft are to produce a number of games for the Electron, which should be available by the time you read this. I understand that the first few items of software will mainly be of the arcade variety.

Meanwhile, Brainstorm Computer Solutions, of Seven Sisters Road, North London, have already produced two text-based adventure games for the Electron, and these will be marketed by Softek.

Verdict

Much has been said about the Electron being a cut-down version of the BBC micro, and it has to be said, this it true. What is not been emphasised enough is that this is still a very sophisticated machine for the money.

If in the opinion of some reviewers, it doesn't fit into any particular price range, this is all to the good.

At present you can either buy a machine under a hundred pounds which has some features but not others, or you can go for an expensive machine, at £400 upwards. In my opinion, the Electron is what a home computer should be, and with the facilities it has to offer, the price is just right.

DJ

Name: Acorn Electron.
Manufacturer: Acorn Computers Ltd.
Available: January 1984.

Mode	No. of Characters	Pixels	Colours	Memory
0	80x32	640x256	2	20K
1	40x32	320x256	4	20K
2	20x32	160x256	16	20K
3	80x25	text	2	16K
4	40x32	320x256	2	10K
5	20x32	160x256	4	10K
6	40x25	text	2	8K

acorn electron

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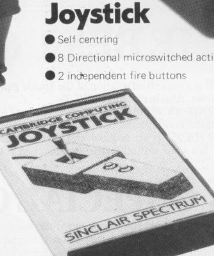

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DAMBUSTERS

Oric 1

Dambusters is an unusual game from the Pan Books/*PCN* title *60 Programs for the Oric 1.* You fire converging rays at bouncing bombs aimed at your dam. Set the cross cursor using the arrow keys to intersect the bombs' path. Press the space bar to fire, but you only get three shots at each bomb.

```
_1 REM @ PAUL STANLEY
_2 LET HS=0
_3 PAPER 4:INK 7:CLS
_4 PRINT CHR$(6):PRINT CHR$(17)
_5 DIM B$(6)
_6 DIM D(40)
_8 GOSUB 8000
_10 GOSUB 1000
_11 FOR I=1 TO 40:D(I)=1:NEXT I
_12 HIRES:PAPER 4:INK 7
_15 PRINT TAB(5)"SCORE:0";:PRINT TAB(15)"HI
-SCORE:";HS
_25 FOR F=1 TO 50:CURSET RND(1)*239 ,145-RN
D(1)*130,1:NEXT F
_30 G=0:FOR F=1 TO 5:CURSET G+12,199-(15+F)
,1:DRAW 227-2*G,0,1:G=G+2:NEXT F
_50 CURSET12,183,1:DRAW0,-9,1:DRAW2,0,1:DRA
W 4,-4,1:DRAW1,1,1:DRAW -4,4,1
_52 DRAW 0,8,1
_55 CURSET 239,183,1:DRAW 0,-9,1:DRAW -2,0,
1:DRAW -4,-4,1:DRAW -1,1,1
_57 DRAW 4,4,1:DRAW 0,8,1
_58 N$=":::::::::::::::::::::::::::::::::::
:"
_59 CURSET 19,171,0:GOSUB 6000
_70 D=1:S=0:A=1:P=18:Y=9:X=INT(RND(1)*25)+5
_97 FOR F=1 TO 5 STEP 2:CURSETX*6,39,0:N=F:
GOSUB 7000
_98 CURSETX*6,39,0:GOSUB 7000:NEXT F
_99 FOR F=1 TO 4:CURSETX*6,39-(F*8),0:N=5:G
OSUB 7000
_100 CURSETX*6,39-(F*8),0:CHAR91,0,1:CURSET
X*6,39-(F*8),0
_101 CURSETX*6,39-(F*8),0:CHAR91,0,0:NEXT F
_102 F=INT(RND(1)*15)+5:G=15+INT(RND(1)*11)
_103 HT=10
_105 A$="[\]^£"+CHR$(96)
_115 REM
_120 K$=KEY$:IF K$=CHR$(10) THEN IF F<19 TH
EN F=F+1
_121 IF K$=CHR$(9) THEN IF G<38 THEN G=G+1
_122 IF K$=CHR$(8) THEN IF G>2 THEN G=G-1
_123 IF K$=CHR$(11) THEN IF F>2 THEN F=F-1
_124 K$=KEY$:F1=F:G1=G
_125 CURSET G*6,F*8,0:CHAR 43,0,1:LET LOSS=
LOSS+LEEK
_126 CURSET G1*6,F1*8,0:CHAR 43,0,0
_127 IF LOSS>1000 THEN GOTO 400
_128 K$=KEY$:IF K$=" " THEN IF S<3 THEN GOS
UB 200
_136 Y=Y+D
_139 CURSETX*6,Y*8-(D*8),0:CHAR ASC(MID$(A$
,A,1)),0,0
_140 CURSETX*6,Y*8,0:CHAR ASC(MID$(A$,A,1))
,0,1
```

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DAMBUSTERS

Oric 1

```
_155 IF RND(1)>.6 THEN F=F+INT(RND(1)*1.5)-
INT(RND(1)*1.5)
_157 IF RND(1)>.4 THEN G=G+INT(RND(1)*1.5 A
ND G<18)-INT(RND(1)*1.5)
_160 IF Y=HT THEN P=P+1:D=1:A=A+1
_170 IF Y=P  THEN SHOOT:A=A+1:D=-1:HT=HT-3
_180 IF A=7 THEN GOTO 350
_190 GOTO 120
_200 K=173-(F*8)  :CURSET 19,171,0:DRAW(G*6
)-17,-K,1
_210 CURSET230,171,1:DRAW(G*6-228),-K,1
_212 ZAP:REM S=S+1
_213 CURSET 19,171,0:DRAW(G*6)-17,-K,0
_214 CURSET 230,171,0:DRAW(G*6)-228,-K,0
_215 IF G=X  THEN IF Y=F THEN GOTO 300
_220 RETURN
_300 CURSET G*6,F*8,0:CHAR 98,0,1:EXPLODE:C
URSET G*6,F*8,0:CHAR 98,0,0
_301 SC=SC+10:PRINT:PRINT TAB(5)"SCORE:";SC
;:PRINT TAB(15)"HI-SCORE:";HS:GOTO 70
_350 EXPLODE:IF D(X)=0 THEN GOTO 370
_360 CURSET X*6,171,0:CHAR 96,0,0
_361 CURSET X*6,166,0:CHAR 96,0,0
_362 LEEK=LEEK+1
_365 D(X)=0:GOTO 70
_370 CURSET X*6,179,0:CHAR 97,0,2
_390 LEEK=LEEK+2
_395 GOTO 70
_400 PRINT:PRINT:PRINT"GAME OVER -- PRESS A
NY KEY TO PLAY"
_405 IF SC>HS THEN HS=SC
_420 GET K$:TEXT:RESTORE:GOTO 10
_999 REM
_1000 M=46080+(91*8):FOR I=M TO M+95
_1001 READ V:POKE I,V:NEXT I
_1002 LOSS=0:SC=0:LEEK=0
_1010 DATA 0,0,0,16,0,0,0,0,0,0,0,24,24,0,0
,0
_1011 DATA 0,0,0,56,56,0,0,0,0,0,0,60,60,60
,0,0
_1012 DATA 0,0,126,126,126,126,0,0,0,0,254,
254,254,254,254,0
_1013 DATA 73,18,73,37,10,17,10,17
_1014 DATA 153,58,36,219,219,36,58,153
_1016 DATA 0,0,0,8,62,0,0,0,0,0,24,255,66,0
,0,0
_1017 DATA 0,0,1,255,37,0,0,0,0,0,128,255,1
64,0,0,0
_1018 B$="c d ef"
_1019 REM I=1 TO 6:B$(I)=MID$(B$,I,1):NEXT
I
_1020 RETURN
_6000 FOR A=1 TO LEN(N$)
_6010 CHAR ASC(MID$(N$,A,1)),0,1
_6020 CURMOV  6,0,0
_6030 NEXT A
```

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DAMBUSTERS

Oric 1

```
_6040 RETURN

_7000 FOR I=1 TO 0 STEP-1
_7005 CHAR ASC(MID$(B$,N,1)),0,I
_7010 CURMOV 6,0,0
_7020 CHAR ASC(MID$(B$,N+1,1)),0,I
_7022 CURMOV -6,0,0
_7025 NEXT I
_7030 RETURN
_8000 PRINT"     D A M B U S T E R S"
_8010 PRINT:PRINT"THE YEAR IS 1943. YOU ARE
 IN CHARGE   OF A POWERFUL BEAM WEAPON";
_8015 PRINT" WITH WHICH"
_8016 PRINT"YOU ARE TO PROTECT A DAM FROM T
HE      BOUNCING BOMBS ";
_8017 PRINT"OF THE ATTACKERS. THEY HAVE SEV
ERAL LANCASTER BOMBERS WHICH "
_8020 PRINT"FLY TOWARDS  YOU  AND  RELEASE
 THEIR DANGEROUS BOMBS."
_8022 PRINT"HOWEVER, YOUR TASK IS NOT THAT
SIMPLE FOR YOUR WEAPON IS UNABLE ";
_8024 PRINT"TO REACH THE LANCASTERS SO YOU
MUST JUST SHOOT AT THE BOMBS INSTEAD."
_8026 PRINT"YOU CAN MOVE YOUR CROSS HAIR SI
GHTS   WITH THE CURSOR KEYS."
_8028 PRINT"PRESS ANY KEY TO CONTINUE":GET
A$:CLS
_8030 PRINT"EVEN ADJUSTING THE SIGHTS IS HA
RD      BECAUSE THERE IS A STRONG WIND";
_8032 PRINT" WHICH  CAUSES YOUR SIGHTS TO M
OVE ABOUT."
_8045 PRINT"FIRE YOUR BEAM WITH THE THE SPA
CE BAR":PRINT
_8050 PRINT "BECAUSE OF THE POWER OF YOUR W
EAPON   AFTER 3 SHOTS IT IS EXHAUSTED ";
_8055 PRINT" UNTIL  THE NEXT BOMBER ATTACKS
. YOUR  BATTLE IS OVER WHEN TOO MUCH ";
_8057 PRINT"WATER HAS POURED THROUGH THE BR
OKEN DAM.":PRINT:PRINT
_8060 PRINT"PRESS ANY KEY TO START":GET A$:
CLS:RETURN
```

CHESHIRE CATS

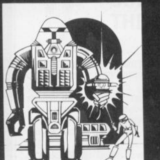
48K Spectrum

This is a shoot-'em-up game which had to be omitted from *60 Programs for the ZX Spectrum* by Pan Books/*PCN*, due to its length. *Cheshire Cats* is a deep space game with hordes of erratic aliens to fight with your laser and, if sorely threatened, you can rsesort to a hyperspace disappearing act.

```
   1 BORDER 0: PAPER 0: INK 7: C
LS
   3 CLS
   4 GO SUB 9000
   5 LET hs=0: POKE 23658,10
  20 GO SUB 8000
  80 RANDOMIZE
 100 LET p=p+(IN 63486=253 AND p
<151)-7*(IN 63486=253 AND p=151)
-(IN 63486=254 AND p>144)+7*(IN
63458=254 AND p=144)
 130 PRINT AT 11,15; INK 5;CHR$
p
 140 IF IN 61438=254 THEN  GO SU
B 4000
 150 IF b THEN  IF IN 61438=253
```

CHRISTMAS IS JUST AROUND THE CORNER SO S

STARFORCE ONE



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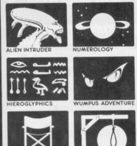

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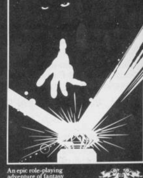

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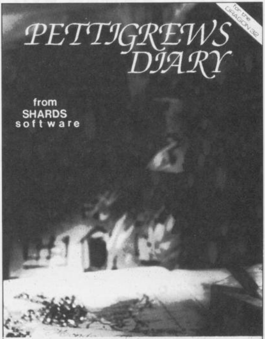
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CHESHIRE CATS

48K Spectrum

```
THEN  GO SUB 1000
 180 GO SUB t*100
 182 IF ATTR (11,15)<>5 AND ATTR
 (11,15)<>7 THEN  GO SUB 7000
 185 LET ti=ti-1: PRINT AT 0,28;
 PAPER 5; INK 0;ti;" ": IF ti=0
THEN  PRINT  FLASH 1;AT 0,25;"TI
:";ti: GO TO 6000
 190 IF t1-ti>=29 THEN  GO SUB 3
000
 199 GO TO 100
 200 LET y=y+2: LET x=x+2: IF y>
=21 THEN  LET y=1
 210 IF x>=31 THEN  LET x=0
 220 PRINT  OVER 1;AT y1,x1;"jk"
;AT y1+1,x1;"lm"; BRIGHT 1; INK
2;AT y,x;"jk"; INK 4;AT y+1,x;"l
m"
 230 LET y1=y: LET x1=x: RETURN
 300 LET y=INT (y+RND*1.5-RND*1.
5): LET x=x+2: IF y>=21 THEN  LE
T y=1
 305 IF y<=0 THEN  LET y=20
 307 IF x=30 THEN  LET x=0
 320 PRINT  OVER 1;AT y1,x1;"jk"
;AT y1+1,x1;"lm"; BRIGHT 1; INK
5;AT y,x;"jk"; INK 4;AT y+1,x;"l
m"
 330 LET y1=y: LET x1=x: RETURN
 400 LET y=INT (y+RND*3-RND*3):
LET x=INT (x+RND*3-RND*3)
 410 IF x<0 THEN  LET x=30
 420 IF x>30 THEN  LET x=0
 430 IF y>20 THEN  LET y=1
 440 IF y<1 THEN  LET y=20
 450 PRINT  OVER 1;AT y1,x1;"no"
;AT y1+1,x1;"pq"; BRIGHT 1; INK
5;AT y,x;"no";AT y+1,x;"pq"
 460 LET y1=y: LET x1=x: RETURN
 500 LET y=y-3: IF y<1 THEN  LET
 x=x+INT (RND*7)+3: LET y=20: IF
 x>30 THEN  LET x=INT (RND*5)
 510 PRINT AT y1,x1; OVER 1;"no"
;AT y1+1,x1;"pq"; INK 2; BRIGHT
1;AT y,x;"no";AT y+1,x;"pq"
 520 LET y1=y: LET x1=x: RETURN
 600 LET de=de+1
 610 IF de=5 THEN  LET y=INT (RN
D*20)+1: LET x=INT (RND*30)+1: L
ET de=0
 615 LET y=y+INT (RND*2-RND*2):
LET x=x+INT (RND*2-RND*2): IF y<
1 OR y>20 OR x<0 OR x>30 THEN  L
ET de=5: GO TO 610
 620 PRINT  OVER 1;AT y1,x1;"rs"
;AT y1+1,x1;"tu"; BRIGHT 1; INK
2;AT y,x;"rs";AT y+1,x;"tu"
 625 LET y1=y: LET x1=x
 630 RETURN
 700 LET y=y+INT (RND*2-RND*2+(y
<11)-(y>11)): LET x=x+2
 710 IF x>30 THEN  LET x=0
 720 IF y>20 OR y<1 THEN  LET y=
11
 730 PRINT AT y1,x1; OVER 1;"sr"
;AT y1+1,x1;"qp"; BRIGHT 1; INK
6;AT y,x;"sr"; INK 4;AT y+1,x;"q
p"
 740 LET y1=y: LET x1=x: RETURN
 800 LET y=y+di: LET x=x+2: LET
de=de+1: IF de=5 THEN  LET de=0:
 LET di=-di
 810 IF y<1 THEN  LET y=20
 820 IF y>20 THEN  LET y=1
 830 IF x>30 THEN  LET x=0
 840 PRINT  OVER 1;AT y1,x1;"sr"
;AT y1+1,x1;"qp"; INK 5; BRIGHT
1;AT y,x;"sr";AT y+1,x; INK 4;"q
p"
 850 LET y1=y: LET x1=x
 860 RETURN
 900 LET y=y+di: LET x=x+de
 910 IF x>30 THEN  LET x=0
 920 IF y<1 THEN  LET y=20
 930 IF y>20 THEN  LET y=1
 940 IF RND>.8 THEN  LET de=(2 A
ND de=0): LET di=(2 AND di=0): I
F RND>.5 THEN  LET di=-di
 950 PRINT AT y1,x1; OVER 1;"ii"
;AT y1+1,x1;"ii"; INK 6; FLASH 1
;AT y,x;"ii";AT y+1,x;"ii"
 960 LET y1=y: LET x1=x: RETURN
1000 LET b=b-1: PRINT  PAPER 5;
INK 0;AT 0,19;b;" "
1005 IF p=144 THEN  LET g1=124:
LET f1=88: LET f=78: LET g=0
1006 IF p=145 THEN  LET g1=128:
LET f1=88: LET f=78: LET g=78
1007 IF p=146 THEN  LET g1=128:
LET f1=83: LET f=0: LET g=126
1008 IF p=147 THEN  LET g1=128:
LET f1=79: LET f=-78: LET g=78
1009 IF p=148 THEN  LET g1=123:
LET f1=79: LET f=-78: LET g=0
1010 IF p=149 THEN  LET g1=119:
LET f1=79: LET f=-78: LET g=-78
1011 IF p=150 THEN  LET g1=119:
LET f1=84: LET f=0: LET g=-118
1012 IF p=151 THEN  LET g1=119:
LET f1=88: LET f=78: LET g=-78
1020 PLOT  OVER 1;g1,f1: DRAW  F
LASH 0; OVER 1; BRIGHT 1; INK 3;
g,f: BEEP .006,25
1040 IF ATTR (y,x)=67 OR ATTR (y
```

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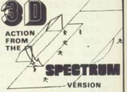

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WHAT THE PRESS SAY ABOUT IT:—

IF YOU have always wanted to manage a football team, **FOOTBALL MANAGER,** *from Addictive Games, is for you — The game is ideal for a football fanatic but the most interesting thing for us was the 3-D graphics used to create the goalmouth action — the game is a winner.*
SINCLAIR USER FEBRUARY 1983

Although I'm no great football fan, I really enjoyed playing this game — excellent use is made of colour and user-defined graphics. The game is very logically put together, so that the development of strategy and tactics has a real effect. For example, one of my teams got through to the fourth round of the F.A. Cup where it was beaten by a second division side. This upset morale and meant that our promotion bid failed. Perhaps I should have given up the F.A. Cup run and held some good players back — the possibilities are endless. Brian Clough had better watch out!
* SPECTRUM VERSION ONLY. **ZX COMPUTING FEB/MARCH 1983**

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CHESHIRE CATS

48K Spectrum

```
,x+1)=67 OR ATTR (y+1,x)=67 OR A
TTR (y+1,x+1)=67 THEN  LET hit=1
1050 PLOT  OVER 1;g1,f1: DRAW  O
VER 1;g,f
1060 IF hit THEN  GO TO 2000
1070 IF b=0 THEN  PRINT  FLASH 1
;AT 0,16;"SH:";b: GO TO 6000
1100 RETURN
2000 PRINT AT y,x; OVER 1;a$(1);
AT y+1,x;a$(2)
2020 LET hit=0: LET sc=sc+o: PRI
NT AT 0,3; PAPER 5; INK 0;sc
2030 OVER 1: BRIGHT 1
2050 FOR f=1 TO 4: FOR i=1 TO 2
2100 IF y-f>=1 AND x-f>=0 THEN
PRINT  INK 1+i*3;AT y-f,x-f;a$(1
,1)
2110 IF y+f<=21 AND x-f>=0 THEN
 PRINT  INK 1+i*3;AT y+f,x-f;a$(
2,1)
2120 IF y-f>=1 AND x+f<=31 THEN
 PRINT  INK 1+i*3;AT y-f,x+f;a$(
1,2)
2130 IF y+f<=21 AND x+f<=31 THEN
  PRINT  INK 1+i*3;AT y+f,x+f;a$
(2,2)
2140 BEEP .006,f+i*4: NEXT i: NE
XT f: OVER 0: BRIGHT 0
2200 PRINT AT 11,15; INK 5;CHR$
p
2300 IF b=0 THEN  PRINT  FLASH 1
;AT 0,16;"SH:";b: GO TO 6000
2500 LET t=INT (RND*8)+2: LET y=
INT (RND*20)+1: LET x=0
2505 LET y1=y: LET x1=x: LET t1=
ti
2510 IF t=3 OR t=2 THEN  LET a$(
1)="jk": LET a$(2)="lm": LET o=(
20 AND t=2)+(10 AND t=3)
2520 IF t=4 OR t=5 THEN  LET a$(
1)="no": LET a$(2)="pq": LET o=(
25 AND t=4)+(10 AND t=5)
2530 IF t=6 THEN  LET a$(1)="rs"
: LET a$(2)="tu": LET de=0: LET
o=30
2532 IF t=7 OR t=8 THEN  LET a$(
1)="sr": LET a$(2)="qp": LET o=(
25 AND t=8)+(20 AND t=7): LET de
=0: LET di=-2
2534 IF t=9 THEN  LET di=0: LET
de=2: LET a$(1)="ii": LET a$(2)=
"ii": LET o=20
2540 PRINT  OVER 1; INK 4;AT y,x
;a$(1);AT y+1,x;a$(2)
2550 RETURN
3000 LET d=x*8+(16 AND x<=15)-(x
>15)
3010 PLOT d,(21-y)*8: DRAW  INK
5; OVER 1;(124-d)/3,(84-(21-y)*8
)/3
3020 BEEP .02,20: DRAW  INK 5; O
VER 1;(124-d)/3,(84-(21-y)*8)/3
3022 BEEP .02,25: DRAW  INK 5; O
VER 1;(124-d)/3,(84-(21-y)*8)/3
3025 BEEP .02,30: PLOT d,(21-y)*
8: DRAW  OVER 1;(124-d)/3,(84-(2
1-y)*8)/3
3027 BEEP .02,35: DRAW  OVER 1;(
124-d)/3,(84-(21-y)*8)/3
3030 BEEP .02,40: DRAW  OVER 1;(
124-d)/3,(84-(21-y)*8)/3
3040 GO TO 7000
4000 LET ti=ti-30: LET t1=t1-30:
 PRINT AT 0,28; PAPER 5; INK 0;t
i;" ": IF ti<=0 THEN  PRINT  FLA
SH 1;AT 0,25;"TI:0 ": GO TO 6000
4010 FOR g=7 TO 0 STEP -1
4020 PRINT AT 11,15; INK g;CHR$
p
4030 BEEP .02,g*3: NEXT g
4035 PRINT AT 11,15;" "
4040 FOR f=1 TO 8: FOR g=1 TO 10
: NEXT g: GO SUB t*100: NEXT f
4050 FOR g=0 TO 5: PRINT AT 11,1
5; INK g;CHR$ p: BEEP .02,g*3: N
EXT g
4060 RETURN
6000 FOR g=1 TO 7
6010 FOR x=1 TO 21
6020 PRINT  OVER 1; PAPER g;AT x
,0;"
   "

6030 BEEP .005,30: NEXT x: NEXT
g
6040 PRINT AT 8,11;"GAME OVER";
PAPER 7; INK 0;AT 0,0; FLASH 1;"
SC:";sc
6045 IF sc<=hs THEN  GO TO 6060
6050 LET hs=sc: PRINT AT 11,1;"W
ELL DONE - A NEW HIGH SCORE!!"
6055 PRINT AT 13,4;"PLEASE ENTER
 YOUR NAME.": INPUT h$: FOR f=1
TO 50: NEXT f: GO TO 6070
6060 PRINT AT 11,1;"THE HIGH SCO
RE IS ";HS;" POINTS.";AT 12,1;"B
Y ";h$
6070 PRINT AT 16,2;"PRESS ANY KE
Y TO PLAY AGAIN."
6080 IF INKEY$="" THEN  GO TO 60
80
6090 BEEP .3,60: CLS : GO TO 20
7000 LET li=li-1: PRINT  PAPER 5
```

CHESHIRE CATS

48K Spectrum

```
; INK 0;AT 0,12;li
7010 FOR f=1 TO 5: FOR g=144 TO
151
7020 PRINT  INK RND*4+3;AT 11,15
;CHR$ g: BEEP .02,f
7030 NEXT g: NEXT f
7040 IF li=0 THEN  PRINT  FLASH
1;AT 0,9;"LI:";li: GO TO 6000
7050 PRINT  OVER 1; INK 7;AT y,x
;a$(1);AT y+1,x;a$(2); OVER 0;AT
 11,15;" "
7060 GO TO 2500
8000 FOR f=1 TO 60: PLOT RND*255
,RND*167: NEXT f
8100 DIM a$(2,2)
8300 LET p=144
8500 LET ti=500: LET b=100: LET
sc=0
8550 LET li=5: LET hit=0
8600 PRINT  PAPER 5; INK 0;AT 0,
0;"SC:       LI:    SH:      TI:
  "
8700 PRINT  PAPER 5; INK 0;AT 0,
3;sc;AT 0,12;li;AT 0,19;b;AT 0,2
8;ti
8990 BEEP .1,0
8999 GO TO 2500
9000 CLS : PRINT  PAPER 6; INK 0
;AT 5,0;"CHESHIRE CATS AND OTHER
 NASTIES!"
9005 PRINT  INK 5'''"   Program
design & software"'''      by P
AUL STANLEY."
9007 PAUSE 250: CLS
9010 PRINT '''"THEY PLACED ME IN
SPACE."'"WITHOUT ENGINES, JUST A
 LASER."
9020 PRINT '"""SHOOT THE NASTIES
"" THEY SAID."'"I'D LIKE TO SEE
THEM DO IT."
9030 PRINT '"TWIST LEFT WITH  .
RIGHT WITH  ,WERE MY INSTRUCTION
S."
9040 PRINT AT 8,16; INK 3; BRIGH
T 1;1;AT 8,30;2
9050 PRINT ''"THEY TOLD ME TO BL
AST 'EM WITH  ,AND THAT IF I GOT
 INTO TROUBLE,I COULD PRESS  ."'
'"GOD ONLY KNOWS WHAT IT DOES."
9060 PRINT  INK 3; BRIGHT 1;AT 1
1,31;9;AT 13,14;0
9070 PRINT '''"PLEASE HELP ME!"'
'"IF YOU'RE PREPARED TO, PRESS A
NYKEY...."
9080 IF INKEY$="" THEN  GO TO 90
80
9090 BEEP .3,60
9100 CLS
9110 RESTORE : FOR x=USR "a" TO
USR "u"+7
9120 READ n: POKE x,n
9130 NEXT x
9140 DATA 8,8,42,42,42,42,42,62,
0,18,36,72,146,164,72,48,0,0,252
,128,255,128,252,0,48,72,164,146
,72,36,18,0,62,42,42,42,42,42,8,
8,12,18,37,73,18,36,72,0,0,63,1,
255,1,63,0,0,0,72,36,18,73,37,18
,12,231,195,165,24,24,165
9150 DATA 195,231,0,0,1,3,71,127
,21,21,0,0,192,224,241,255,84,84
,31,63,102,127,93,8,0,0,252,254,
51,255,221,136,0,0,0,0
9160 DATA 48,72,164,68,2,3,0,0,1
2,18,37,34,64,192,3,7,11,17,18,3
2,32,192,192,224,208,136,72,4,4,
3,128,192,160,147
9170 DATA 255,251,249,255,1,3,5,
201,255,191,159,255,127,96,96,48
,56,28,15,3,254,6,6,12,28,56,240
,192
9180 RETURN
```

ENERGY FIELD

Dragon 32

Seal off the four open ends of the time tunnel by setting energy fields as the relentless stream of aliens pours through. Setting an energy field outside a tunnel mouth will cause destructive feedback, as will setting one at the end of an unoccupied tunnel. A fine game from *60 Programs for the Dragon 32* by Pan Books/*PCN*.

```
1 REM *** DRAGON VERSION ***
2 CLS:CLEAR500
3 D=0:X=0:Y=0:F7=0:F8=187:F9=239:FA=8:F6=0:F2
=0:F3=0:F4=0:F1=0:F2=0:F=0
4 REM *** ENERGY FIELDS ***
5 GOSUB9800
7 GOSUB9840
```

STAR SOCCER

The ACTION game with the thrills of real football

Choose your team formations from 3-2-5, 4-2-4, or 4-4-2.
When the game starts it's up to you to plan your moves and outwit your opponents. See the results played out by fast machine code routines on a birds-eye view of the pitch.

Make the split second decisions that the professionals have to!

Shall I make the short safe pass and maybe let the defence re-group?
Or do I try a long defence-splitting ball and risk an interception?
Has my winger got the speed to take on the full back and beat him?
Do I try a long shot and catch the goalie off his line?
Or shall I give the ball to a team-mate in a better position?

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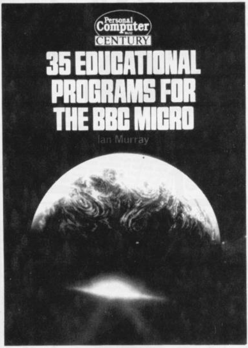

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CENTURY

ENERGY FIELD

Dragon 32

```
8 H=0
10 GOSUB8000
20 GOSUB9000
35 COLOR2,0:GET(X,Y)-(X+16,Y+8),R1,G:PUT(X,Y)
-(X+16,Y+8),R,AND
39 GOSUB9000:GOSUB9550:IFLI<=1THEN GOTO 7000
40 P=P-0.1::G=1:ON RND(4) GOTO 100,200,300,40
0
60 F5=8:F6=16:K1=253:F3=X+F6:F4=Y+F5:K0=254:F
ORD=1TOP:COLOR2,0:PUT(X,Y)-(F3,F4),R1,PSET
65 IFPEEK(339)=K0 THEN X=X+FA:Y=Y+FA
70 IF PEEK(339)=K1 THEN X=X+FA:Y=Y-FA
75 IF Y<F7 THEN Y=F8
80 IF Y>F8 THEN Y=F7
87 IF X>F9 THEN X=FA
90 F3=X+F6:F4=Y+F5:GET(X,Y)-(F3,F4),R1,G:COLO
R 4,0:PUT(X,Y)-(F3,F4),R,AND
92 IF PEEK(338)=K0 AND G<>0 THEN GOSUB1000
93 NEXT D
95 RETURN
100 F2=49:A=1:F1=112:O=S:FOR F=1TO7STEP2
110 E$="BM128,"+STR$(F1)+";S"+CHR$(F2)+";"+A$

(1):DRAW"C1;"+E$
115 IF G<>0 THEN GOSUB60
120 PLAY"O5;L150;"+CHR$(48+F)
130 DRAW"C0;"+E$:F1=F1+8:E$="BM128,"+STR$(F1)
+";S"+CHR$(F2)+";"+A$(1):DRAW"C1;"+E$:F2=F2+1
135 IF G<>0 THENGOSUB60
140 PLAY"O5;L150;"+CHR$(49+F)
150 DRAW"C0;"+E$
160 F1=F1+8:NEXT F
165 IFS<>O THEN :DRAW"BM128,180;C2":GOSUB9700
:GOSUB9500:DRAW"BM128,180;C0":GOSUB9700
167 IF S=O THEN LI=LI-0.2:
170 GOTO 39
200 A=2:F2=49:F1=96:O=S:FOR F=1 TO7STEP2
210 C$="BM128,"+STR$(F1)+";S"+CHR$(F2)+";"+A$
(1):DRAW"C1;"+C$
215 IF G<>0 THEN GOSUB60
220 PLAY"O5;L150;"+CHR$(48+F)
230 DRAW"C0;"+C$:F1=F1-8:C$="BM128,"+STR$(F1)
+";S"+CHR$(F2)+";"+A$(1):DRAW"C1;"+C$:F2=F2+1
235 IF G<>0 THEN GOSUB60
240 PLAY"O5;L150;"+CHR$(49+F)
250 DRAW"C0;"+C$
260 F1=F1-8:NEXT F
265 IF S<>O THEN DRAW"BM128,29;C2":GOSUB9700:
GOSUB9500:DRAW"BM128,29;C0":GOSUB9700
267 IF S=O THEN LI=LI-0.2
270 GOTO 39
300 A=3:F2=49:F1=120:O=S:FOR F=1TO9STEP2
310 C$="BM"+STR$(F1)+",104;S"+CHR$(F2)+";"+A$
(2):DRAW"C1;"+C$
315 IF G<>0 THEN GOSUB60
320 PLAY"O4;L150;"+CHR$(48+F)
330 DRAW"C0;"+C$:F1=F1-8:C$="BM"+STR$(F1)+",1
04;S"+CHR$(F2)+";"+A$(2):DRAW"C1;"+C$:F2=F2+1
335 IF G<>0 THEN GOSUB60
340 PLAY"O4;L150;"+CHR$(48+F)
350 DRAW"C0;"+C$
360 F1=F1-8:NEXT F
365 IF S<>O THEN DRAW"BM23,104;C2":GOSUB9700:
GOSUB9500:DRAW"BM23,104;C0":GOSUB9700
367 IF S=O THEN LI=LI-0.2
370 GOTO 39
```

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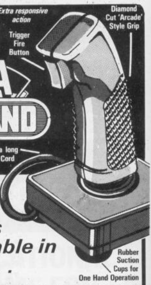
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ENERGY FIELD

Dragon 32

```
400 A=4:F2=49:F1=136:O=S:FOR F=1 TO 9STEP2
410 C$="BM"+STR$(F1)+",104;S"+CHR$(F2)+";"+A$
(2):DRAW"C1;"+C$
415 IF G<>0 THEN GOSUB60
420 PLAY"O4;L150;"+CHR$(48+F)
430 DRAW"C0;"+C$:F1=F1+8:C$="BM"+STR$(F1)+",1
04;S"+CHR$(F2)+";"+A$(2):DRAW"C1;"+C$:F2=F2+1
435 IF G<>0 THEN GOSUB60
440 PLAY"O4;L150;"+CHR$(48+F)
450 DRAW"C0;"+C$
460 F1=F1+8:NEXT F
465 IF S<>O THEN DRAW"BM233,104;C2":GOSUB9700
:GOSUB9500:DRAW"BM233,104;C0":GOSUB9700
467 IF S=O THEN LI=LI-0.2
470 GOTO 39
1000 IF X<45 THEN GOTO 1100
1010 IF X>86 AND X<170 THEN GOTO 1200
1020 IF X<=211 THEN GOTO 2000
1030 IF X>241 OR Y<31 OR Y>177 THEN GOTO 2000
1040 COLOR 1,0:LINE(212,32)-(239,176),PSET,BF
1050 GOSUB 9600
1060 COLOR 0,0:LINE(212,32)-(239,176),PSET,BF
1065 IF A<>4 THEN GOTO 2000
1070 S=S+20
1080 G=0
1090 GOSUB9000:RETURN
1100 IF X<15 OR Y<31 OR Y>177 THEN GOTO 2000
1110 COLOR 1,0:LINE(16,32)-(43,176),PSET,BF
1120 GOSUB9600
1130 COLOR 0,0:LINE(16,32)-(43,176),PSET,BF
1135 IF A<>3 THEN GOTO2000
1140 S=S+20
1150 G=0
1160 GOSUB9000:RETURN
1200 IF Y<80 THEN GOTO 1300
1210 IF Y<162 OR Y>187 THEN GOTO2000
1220 COLOR 1,0:LINE(88,163)-(169,186),PSET,BF
1230 GOSUB9600
1240 COLOR 0,0:LINE(88,163)-(169,186),PSET,BF
1245 IF A<>1 THEN GOTO 2000
1250 S=S+20
1260 G=0
1270 GOSUB9000:RETURN
1300 IF Y>46 OR Y<21 THEN GOTO 2000
1310 COLOR 1,0:LINE(88,22)-(169,45),PSET,BF
1320 GOSUB9600
1330 COLOR 0,0:LINE(88,22)-(169,45),PSET,BF
1335 IF A<>2 THEN GOTO 2000
1340 S=S+20
1350 G=0
1360 GOSUB9000:RETURN
2000 REM
2010 J=140:FOR R=Y+8 TO 191 STEP 8
2020 PUT(X,R-8)-(X+16,R),R1,PSET:GET(X,R)-(X+
16,R+8),R1,G:PUT(X,R)-(X+16,R+8),R,PRESET
2030 SOUND J,1:J=J+5
2050 NEXT R
2055 PUT(X,R-8)-(X+16,R),R1,PSET:GET(X,Y)-(X+
16,Y+8),R1,G:PUT(X,Y)-(X+16,Y+8),R,AND
2060 LI=LI-1:IF LI<=1 THEN GOTO 7000
2070 GOSUB9000:RETURN
7000 CLS 4:PRINT@7*32+11,"GAME OVER";:PRINT@9
*32+8,"YOU SCORED: ";S;:FOR I=1 TO 60:SOUND 6
0+I,1:NEXT I
7005 IF S>H THEN H=S
```

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ENERGY FIELD

Dragon 32

```
7100 PRINT@10*32+5,"HIGHEST SCORE: ";H;:PRINT
@15*32,"PRESS A KEY TO PLAY AGAIN";
7105 D$=INKEY$
7200 D$=INKEY$:IFD$="" THEN GOTO 7200
7300 SCREEN 1,0:PCLS0:X=8:Y=8:S=0:LI=8:P=5:RE
STORE: GOTO20
8000 DIMA$(4):RESTORE:FORF=1TO3:READ A$(F):NE
XTF
8005 PMODE3:PCLS0:SCREEN1,0:COLOR2,0
8010 DIM R(16,8):LINE(0,0)-(16,8),PSET:LINE(1
6,0)-(0,8),PSET:LINE(0,0)-(0,8),PSET:LINE(16,
0)-(16,8),PSET
8020 LINE(7,2)-(9,6),PSET,BF:GET(0,0)-(16,8),
R,G:PCLS0
8030 DIM R1(16,8),R2(12,12)
8040 X=8:Y=8
8050 DATA "U2;D4;U2;L2;R4;BR1;U1;H4;L3;G4;D3;
F4;R3;E4;U1"
8060 DATA"BR2;U3;L4;D4;R4;U1;BR2;U6;L8;D8;R8;
U2;"
8070 DATA"BD4;U8;BR4;BD4;L8;BU4;F8;BL8;E8"
8100 S=0:LI=8:P=5:RETURN
9000 COLOR 2,0:DRAW "S4;BM126,98;R4;D4;R4;D4;
L4;D4;L4;U4;L4;U4;R4;U4"
9010 DRAW"M-40,-77;R84;D25;L84;U25;BM86,46;M+
40,+52;R4"
9020 DRAW"M+40,-52;U25;M-40,+77"
9030 DRAW"BM126,110;M-40,+77;R84;U25;L84;D25;
U25;M+40,-52;R4;M+40,+52;D25;M-40,-77"
9040 DRAW"BM122,102;M-107,-71;R30;D146;L30;U1
46;R30;M+77,+71;D4;M-107,+71;R30;M+77,-71"
9050 DRAW"BM134,102;M+107,-71;L30;D146;R30;U1
46;L30;M-77,+71;D4;M+107,+71;L30;M-77,-71"
9060 RETURN
9500 PLAY"O1;L20;CEGEC":RETURN
9550 COLOR0,0:LINE(0,0)-(255,8),PSET,BF:J=0:F
OR I=1TO8
9560 IF I<=LI THEN COLOR 1,0:PUT(J,0)-(J+16,8
),R,PSET
9570 J=J+24:NEXT I: RETURN
9600 PLAY"O5;L100;CEDFEG":RETURN
9700 DRAW"S4;"+A$(3):RETURN
9800 CLS2:FOR F=0TO5:FOR G=0TOF:PRINT@F*32+2*
F,"ENERGY FIELDS";:PLAY"O3L30T2V31;"+CHR$(49+
G):NEXTG:NEXT F
9835 PRINT@7*32,"";:RETURN
9840 PRINT"GUARD THE TUBE WITH YOUR CRAFT":PR
INT"BY SETTING UP ENERGY SHIELDS AT THE 4 OPE
N ENDS OF THE SYSTEM."
9841 PRINT"ATTEMPTING TO PLACE A FIELD AT  AN
Y PLACE OTHER THAN THE END    WILL RESULT IN
YOUR DESTRUCTION"
9850 PRINT"SETTING ONE UP AT A TUBE NOT    CO
NTAINING AN ENEMY WILL RESULT IN DESTRUCTION
ALSO."
9855 C$=INKEY$:IFC$=""THEN GOTO 9855
9856 CLS:GOSUB9800
9860 PRINT"MOVE WITH 1(UP) & 9(DOWN) BUT   RE
MEMBER THAT YOU MOVE RIGHT AT THE SAME TIME A
ND GOING OFF THE SCREEN WILL PLACE YOU ON THE
    OPPOSITE SIDE."
9870 PRINT"PLACE AN ENERGY FIELD AT A TUBE MO
UTH WITH 0. LETTING AN ENEMY  PAST OR SELF-DE
STRUCTION RESULTSIN A POWER LOSS AND IF THIS
IS  TOO GREAT THE GAME IS OVER.":INPUT"PRESS
ENTER TO START";C$:CLS
9880 RETURN
```

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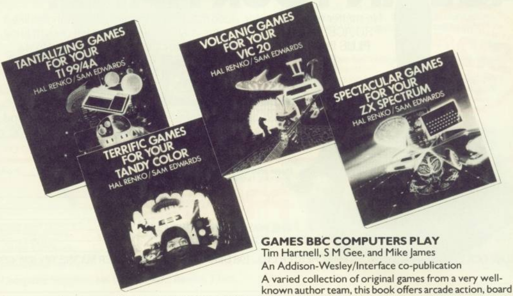
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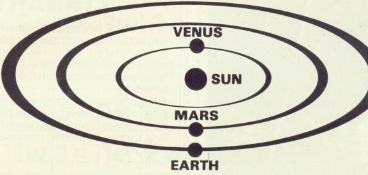

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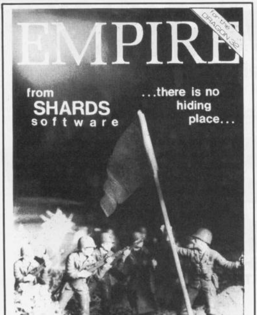

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	4s	2s	1s	1w	4w	
	1e	1n	2w	1e	1n	
W	3e	2s	LAST	1n	2w	E
	1n	1w	1s	1e	2w	
	3e	1n	2e	1n	2n	

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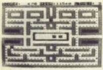

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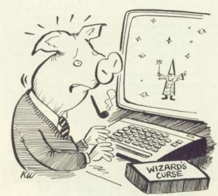
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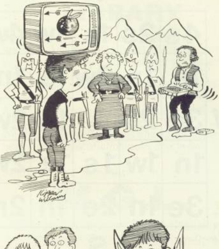
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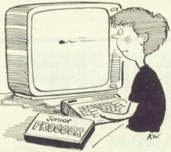
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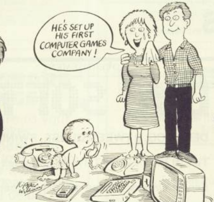
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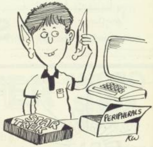
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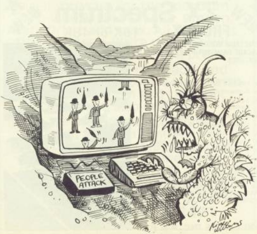
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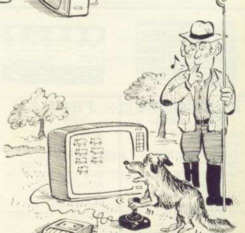
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16K ZX81
Here is a selection of titles still available for ZX81. Send s.a.e. for illustrated catalogue. These are the ZX81 equivalents of the Spectrum programs described above. Although similar in concept the specifications fall short of the descriptions given for the Spectrum.

"FOOTBALL-LEAGUE"	**Forerunner of "Day of the Match"**	**£4.00**
"TEST-MATCH"	**Forerunner of "Ball by Ball"**	**£4.00**
"VIDEO-PLAN"	**Forerunner of "Superplan"**	**£7.00**
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"VIDEO-SKETCH"	**Forerunner of "Superdraw"**	**£7.00**

Many independent computer shops now stock our products but we continue to supply by mail order on an off-the-shelf, immediate delivery basis. Prices include VAT, post and packing in U.K. Add a bit for postage if you live in Outer Mongolia. (*Note: "Day of the Match" not available until late October 1983*).

VIDEO SOFTWARE LTD.,
Stone Lane, Kinver, Stourbridge, West Midlands.
Telephone: 0384 872462

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THOUGHTS: SOLUTIONS

Page 139: the least number of complete years before the Sun and the three planets will again be in line is 147. (The Earth takes three orbits before it gets to '6 o'clock'; Mars takes 21 orbits before it gets to '6 o'clock'; but since a planet can be in line after every half of an orbit, Venus only takes three and a half orbits before it reaches the '6 o'clock' position.

Page 141: the first button which must be pressed is the button in the centre column, bottom row, that is '1w'.

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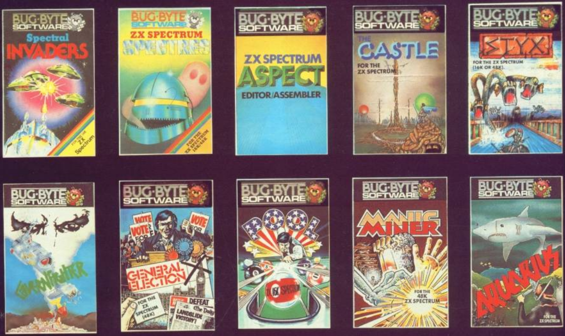
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